
THE UNIVERSITY *of* EDINBURGH

# Geography and Enlightenment in the German states, *c*.1690 – *c*.1815

Luise Fischer

Doctor of Philosophy

The University of Edinburgh

2014

# Abstract

This thesis is concerned with the science of geography in the German states during the 'long' eighteenth century, *c.*1690 – *c.*1815. It speaks to recent scholarly debates in historical geography, the history of science, book history, and Enlightenment studies. The thesis investigates the forms taken by eighteenth-century German geography, its meanings, and practices. This is of particular interest, since this topic is understudied. The thesis is based upon an analysis of geographical print (books and periodicals) and manuscript correspondence.

The thesis proposes that geography's definition was understood as 'description of the earth'. The interpretative meaning of this definition, geography's purpose in print, and its educational practice (content and methods) were, in contrast, debated. The thesis suggests that geographical print – in the form of books and periodicals – served two main purposes: progress in geography, guided by the aim of scientific 'completeness,' and progress of society, guided by the aim of human improvement.

In chapter 1, I outline the main topics and the structure of the thesis. Chapter 2 reviews the background of the thesis, and offers a partial historiographic and conceptual overview of the relevant themes. In chapter 3, I show that the Holy Roman Empire was characterised by fragmented political, religious, urban, and scholarly landscapes. The German emphasis on 'writing' geography 'completely' was partly, I argue, a way to transcend this fragmentation in an imagined 'geographical republic of letters'. The emphasis on writing geography systematically was a way to justify the German wish for greater scholarly recognition on part of their foreign 'colleagues' who more opportunities to participate in geographical expeditions overseas and in colonial politics. In chapter 4, I argue that the classification of geography and geography's relation to other sciences were debated. In consequence, geographical practice and use – geography's writing and teaching – affected its interpretative meaning. In chapter 5, I go on and suggest that geography was a sedentary science aimed at improvement in geography and of society. Geographical print production and its evolution reflect the

urban and religious landscapes of the empire. Geographical print was produced across the German states and, particularly, in the Protestant – middle and central German – states. This leads in chapter 6 to an analysis of geographical education and the suggestion that wide-spread conservatism in geographical instruction reflects the education aim for social utility and personal '*eudaimonia'*, as well as and an adherence to given social and political structures. In conclusion (chapter 7), the main findings of this thesis shed light on the production and use of geography in the German states during the 'long' eighteenth century, and the history of geography more generally. In discussing the relationship between Enlightenment thought and geography, the thesis extends our knowledge on German intellectual history, and contributes to our understanding of the geographies of Enlightenment geographical knowledge and practice.

# Acknowledgements

I would like to extend my gratitude to my supervisors Charles W. J. Withers and Fraser MacDonald without whose academic guidance and support this thesis would not exist.

I am also grateful for skilful advice and support from librarians and archivists at Göttingen State and University Library, the Georg Eckert Institute for International Textbook Research in Brunswick, the Thüringer Universitäts- und Landesbibliothek Jena, the Duchess Anna Amalia Library in Weimar, the Berlin State Library, the Bavarian State Library in Munich, the University Library Heidelberg, the Mannheim University Library, the Hamburg State and University Library Carl von Ossietzky, the Universitäts- und Forschungsbibliothek Erfurt/Gotha, the Leipzig University Library, the Universitäts- und Landesbibliothek Sachsen-Anhalt in Halle, the Herzog August Library in Wolfenbüttel, the Archive of the German Academy of Sciences Leopoldina in Halle, Houghton Library at Harvard (Cambridge), and Yale University Library in New Haven.

I would also like to thank for the financial support provided by the Economic and Social Science Research Council (ESRC) and the Studienstiftung. My thanks go to the Georg Eckert Institute for International Textbook Research in Brunswick and the School of GeoSciences at the University of Edinburgh who provided additional funding support for research in Brunswick and Göttingen.

I am also most grateful for the support and advice received from friends, especially Jochen, David, Nico, Jorge, Muriel, Celine, and Sophie. Finally, this thesis would not have been possible without the constant support of my parents and my sister. I am forever grateful.

## Declaration

I hereby declare that this thesis has been composed by me, that the work is my own, and that it has not been submitted for any other degree or professional qualification.

Luise Fischer
May 2014

## Contents

## Figures

## Tables

# 1

# Introduction: 'Geography,' 'Enlightenment,' 'Germany'

## Introduction

> So now geography! – First the faltering incomplete, undefined study of an unimportant spot of earth – the knowledge of the dwelling place of nascent peoples who often did not know their nearest neighbours –; then the story-teller of adventurous Mirabilia mundi [wonders of the world] – for the beginner everything is new and wonderful – then the unreliable guide of adventurers hungry for gold and the keeper of apprentices' stories, those uninformed daredevils; it [geography] has now finally been promoted as a science, perfectly shining in its greatly flourishing beauty – the teacher of the youth of all social positions; the adviser of regents and statesmen; the leader of speculators, sailors, warriors, conquerors; the confidante of the thorough researcher; the trusted companion of the pilgrimaging citizen of the world; the conversational companion of the businessman who relaxes in the cool evening of life, the companion of the muses; a benefactor of humanity![1]

This quote by the geographical scholar Theophil Friedrich Ehrmann (1762-1811) from his essay 'About geographical literature, its current scope, and the gaps that remain to be filled' (1809) addresses the main questions of this thesis: the understanding, making, and use of geography in the German states during the 'long' eighteenth century *c*.1690 – *c*.1815. This introduction is kept deliberately to an effective minimum to allow analysis of the empirical evidence in the following chapters. This chapter discusses the context and focus, the methods, and the structure of the thesis. I begin by outlining the thesis's subject – the time period and realm of study – the thesis's aims, and the intended contributions. I then elaborate on methods and matters of procedure and translation, before, finally, summarising the themes and structure of the following chapters.

## Subject and research aims

'Germany' as a central state or country did not exist during the eighteenth century. The political and territorial reference of this thesis is the Holy Roman Empire of the German

[1] Ehrmann (1809), 256-257; also in Hofmayr (1810), 2.

Nation, a territorial union of more than 300 states. More specifically, my findings are based on printed and unprinted sources written in the German language, that is, by German-speaking authors who lived in the German states and their provinces or whose works were published there.[2]

My research period, *c*.1690 – *c*.1815 is a period characterised by historical movements and scientific and geographical developments that began in the late seventeenth century and were carried forward and advanced until the early nineteenth century. With reference, particularly, to Enlightenment thought and practice, different definitions have been given, ranging from its beginning in the second half of the seventeenth and ending in the first third of the nineteenth century. Some scholars have argued that the Enlightenment began with figures such as Baruch (Benedict de) Spinoza (1632-1677) and Gottfried Wilhelm Leibniz (1646-1716) in the 1650s or 1670s.[3] Others have cautioned against the use of exact dates, and have referred to European Enlightenment ideas beginning in the "late seventeenth century".[4]

Concerning the Enlightenment in the German states, the relevance of studying the 'long' eighteenth century has recently been re-emphasised.[5] Scholarly research has studied early enlightenment thought in the German states beginning between the 1650s and 1680s, and late enlightenment (especially literary) thought until 1815 or the 1830s. My research period, however, runs from *c*.1690 to *c*.1815, thus broadly following Withers who sees the Enlightenment in Europe (also Enlightenment geography) embracing the period *c*.1685 – *c*.1815.[6] The Holy Roman Empire of the German Nation was dissolved in 1806, but I have here taken the political reorganisation of the European

[2] This includes places which were technically not part of the Holy Roman Empire, but belonged to the states' provinces, such as Königsberg which was part of the Kingdom of Prussia.
[3] Jonathan Israel has stressed 1650 as the beginning of early Enlightenment in France and 'Germany' (see Israel (2001) and see also Israel (2006, 2011)).
[4] Schalk (1964), 469.
[5] In elaborating on the "methods of Enlightenment," Förschler and Hahne's (2013a) edition points to the "long eighteenth century" – also for the German states.
[6] Withers (2007), 1.

states and realms with the Congress of Vienna in 1815 as my end point.[78] As will be clear, however, the range of sources extant within this period is variable.

This thesis has several aims and objectives. It aims to explore the production and circulation of German Enlightenment geography – its textual forms, definition, meanings, and practices. More specifically, I investigate the understanding and meaning of geography in print and in manuscript correspondence, and illuminate the communication and practice of geography in its educational contexts.

My concern overall is to better understand geography in eighteenth-century Germany – its print and education culture and the spatial nature of geography's production history. This is of particular interest because these topics are understudied for the German states in the 'long' eighteenth century. The broader goal is to shed light on German intellectual history, and the relationship between geography and Enlightenment thought and practice more generally. The thesis aims to contribute to previous studies concerning the relationship between geography's textual traditions and its context-specific meanings and practices in and beyond Enlightenment Europe.

My research is informed by the 'spatial turn' – an appreciation of the geographically different meanings and productions of scientific knowledge and by the understanding of place and space as constructed entities. Speaking to the 'spatial turn' in science studies, this thesis explores the spatiality of geographical knowledge production and geography's meaning and practice. This is, then, also a concern with scale: an attention to local, regional (state), and national differences in producing and understanding geography as perceived by eighteenth-century German scholars. The thesis further aims to address recent debates in book history, that is, to consider methodological questions concerning the relationships between the processes of production and communication and the actors and forms of knowledge. In addressing this relationship, I speak to debates concerning Robert Darnton's 'communication circuit' in order to highlight questions of social agency in space.[9]

---

[7] For the 1680s, see Palladini (1996). For a consideration of Enlightenment thought and practice until 1815, see Araújo (2012); for post-1815, see Berger (2007).
[8] Schmidt (2009).
[9] Darnton (1982).

## Notes on method, procedure, and translation

This research began by asking how and in which textual forms geography was constructed, circulated, and understood in the German states during the 'long' eighteenth-century. My findings are based on examination of geographical print and manuscript correspondence. I have identified here an extensive corpus of German geographical print – 345 books and 109 periodicals – plus other primary materials. This thesis is not concerned with the history of maps, globes, or sketches, unless they are part of the print form in question. Remarks upon map production are introduced occasionally in order to enrich the discussion in relevant chapters.

The 345 books and 109 periodicals were identified by consulting existing research, and, then by thematic search in library catalogues, such as the *Katalog der Deutschen Nationalbibliothek* (catalogue of the German national library), the *Katalog des Südwestdeutschen Bibliotheksverbundes* (SWB) (searches more than 1200 libraries in Baden-Wuerttemberg, Saxony, Saarland, and Rhineland-Palatinate), the *Verbundkatalog der Hochschulbibliotheken Nordrhein-Westfalens und eines großen Teils von Rheinland-Pfalz* (Union Catalog North Rhine-Westphalia), the *Hessische BibliotheksInformationsSystem HeBIS Verbundkatalog* (Library Union Catalogues of Hesse and parts of the Rhineland-Palatinate), the *GVK - Gemeinsamer Verbundkatalog* (Union Catalogue of seven German federal states and the Foundation of Prussian Cultural Heritage participating in the Common Library Network (GBV)), the *Bibliotheksverbund Bayern* (BVB) (the union catalogue of all networked Bavarian libraries), and the *Verbund der Landesbibliotheken Österreich und Südtirol* (network of Austrian state libraries and South Tirol).[10] These catalogues were researched by title words, in-text key words related to geography, and by authors. More specifically, I

[10] On the periodicals, see Hohmann (1959), Griep (1999), and Blanke (1999). On books of geography, see Kühn (1939) and Plewe (1986). Christian Gruber wrote a treatise on 'Die Entwicklung der Geographischen Lehrmethoden im XVIII. Und XIX. Jahrhundert' (The development of geographical teaching methods in the eighteenth and nineteenth century) in 1900. I came across this publication after I had done considerable research, especially for chapter 6 on education. Gruber identifies several of the authors and publications I used in that chapter. His aim was, however, different from mine in that he aimed at showing the influence of the previous centuries to geography in 1900, and my list of texts (see Appendix) is fuller than his.

selected books and periodicals whose titles suggest an engagement with geographical content. I have searched for the following key words in titles and subtitles: '*Geographie'* or '*geographisch*,' '*Länderkunde*,' (regional and country geography), '*Erdbeschreibung'* (describing the earth), '*Weltbeschreibung'* (describing the world), '*Erdkunde'* (geography), and chorographical concerns such as '*Amerikanische Bibliothek'* (American library). Differentiating between books and periodicals was a matter recognizing their format and the frequency of publication. Periodicals were issued with a certain frequency, whereas books were published often without knowing the possibility of later editions. The identification of primary materials followed a 'snowball' technique, that is, the identification of sources led to further text references.

Some primary material was partially accessible online. Most required resources were, however, held in libraries and archives across Germany and the United States. For that reason, the research has been undertaken in two steps: a pilot-study in archives and libraries in Göttingen, Jena, and Weimar and a comprehensive research phase in libraries and archives in Göttingen, Brunswick, Wolfenbüttel, Hamburg, Berlin, Leipzig, Jena, Halle, Weimar, Gotha, Heidelberg, Mannheim, Erfurt, Munich, Cambridge, Massachusetts (USA), Boston and New Haven, Connecticut (USA).

I have also studied unprinted sources such as manuscript correspondence. This concerned particularly Christoph Daniel Ebeling's personal collection and correspondence with British and American scholars in the Harvard libraries in Cambridge, Massachusetts, (Houghton Library), in New Haven, and in Hamburg. The "Ebeling papers" are a collection of 26 volumes and contain mostly personal handwritten notes. These notes served Ebeling in preparing his publications, such as his *Erdbeschreibung und Geschichte von Amerika* (Ebeling 1793-1816) and his journal *Amerikanisches Magazin* (Ebeling and Hegewisch 1795-97). The Ebeling manuscripts and letters were of interest since they provided insights into the making of geographical knowledge in Germany and America during the later years of the eighteenth century and during the beginning of the nineteenth century. Ebeling discussed the production of his geographical work, the state of geography in the German states, and the scientific, political, and economic contexts in Hamburg, northern and southern Germany, and

Europe at the time. As it turned out, the material on Ebeling has been too rich to be incorporated in full in the thesis.

Reliant as it is on material preserved in archives and libraries, the knowledge constructed and analysed in what follows reflects only "what has been made available, what has thus been presented to us".[11] The sources found are based on the libraries' catalogues at the time of research. Some of these libraries have since incorporated further relevant books as scholarship has unearthed them, a fact, which makes the search for print an ongoing task. The scope of literature undertaken here, which is never complete, is efficient to provide a secure basis for the claims I advance in what follows. Given the parameters of the search, complete reconstruction of the making of geography in print in the eighteenth-century German states is not intended here.[12]

These limitations are partially mitigated by the use of different kinds of primary sources and mixed methods of data collection and analysis: the combination of qualitative methods and quantitative methods. Primary sources have included German geographical print in the form of books, periodicals, and their edition history. Other primary materials concerned manuscript correspondence, articles in review journals, autobiographies, biographies, necrologies, and encyclopaedias of sciences, works in related sciences – especially publications on history and statistics – and contemporary publications on the progress of the sciences and German erudition more generally.

Mixed methods of analysis have been used. Qualitative methods of source analysis included the thematic analysis of library and printing records and catalogues, hermeneutic/textual analysis of geographical books, periodicals and manuscript correspondence, autobiographies, biographies, necrologies, and encyclopaedias of sciences, articles in review journals, and to contemporary publications on the progress of the sciences and upon eighteenth-century German erudition more generally. In particular, attention has been paid to the material composition of print and to paratextual elements – what has been called 'materialist hermeneutics' – in order to focus on title pages, dedications, prefaces/prefatory material, footnotes, and citational practices and

[11] Osborne (1999), 57.
[12] Bourdieu (1972); Osborne (1999); Lubar (1999); Cook and Schwartz (2002).

references where applicable.[13] Quantitative methods of analysis includes the analysis of geographical print by its principal purpose, intended audiences, places of authors, editors, and publishing and printing.

The thesis is also a work of translation. It has required the translation from old (eighteenth-century) and modern German into contemporary British English, and also includes translations from other languages, such as Latin and French, into English. With exception of correspondence and papers by Christoph Daniel Ebeling and when not indicated otherwise, all translations in this thesis are my own. Every translation comes with the cost of some meaning getting 'lost in translation'.[14] I have, nevertheless, aimed to offer translations that are not literal but reflect contemporaries' meaning. Names and places have been indicated in the English terminology and as used by current English-language research. Places, such as '*München'* and '*Wien'* have been translated and referred to as 'Munich' and 'Vienna.' Places whose names have significantly changed since the eighteenth century, such as 'Königsberg,' have been kept in their eighteenth-century German names. Titles of books and periodicals have been translated: in some cases, the German title or an abbreviation has been kept, when the title is long and has been used earlier in the same chapter or in the thesis.

Finally, since this research is limited to German-language print, a short note on potential bias with respect to language is warranted. Especially in the Catholic states, German books of geography were published in Latin or French. My research of the geographical books and periodicals printed in German – and their cross-references – suggests that only a very few books were published in Latin, either in the Protestant or the Catholic states.

## Structure of the thesis

The order of the themes and arguments elucidated in this thesis has been informed by the 'geographies of science' – the view that "*where* things happen is crucial to knowing *how*

[13] On 'materialist hermeneutics' see Mayhew (2007).
[14] On limitations of German-English translations, see Helms *et al*. (2005); Müller (2006).

and *why* they happen".[15] The thesis therefore begins by elaborating on the scholarly debates and the geographical and temporal context – the eighteenth-century German states – which this thesis addresses (chapters 2 and 3). The work then moves from exploring geography's definition and meaning (chapter 4), to an analysis of its print culture (chapter 5), and, finally, to an examination of geography's use and practice in education (chapter 6). The order of chapters four to six is guided by debates in historical geography concerning the relationship between geographical text, meaning, and practice.[16] The thesis as a whole does not follow a fully chronological or geographical trajectory; the topics scrutinised in each chapter discuss spatial differences or temporal developments when relevant.

In more detail, chapter two reviews relevant scholarly work to date on Enlightenment and geography, and places the thesis in debates that have informed it. It elaborates on the interpretative stance of the thesis and offers a partial historiographic overview of research on eighteenth-century geography, and upon the 'spatial turn' – the spatiality of scientific knowledge more generally. The chapter also discusses scholarship in book history that has informed the thesis's methodological approach, particularly debates concerning Robert Darnton's 'communication circuit'.[17] The chapter dwells on existing research on geography in the eighteenth-century German states, and identifies the gaps in understanding against which this thesis has been written.

In chapter three I refer to contextual literature in order to explore the political, religious, urban, and intellectual landscapes of the eighteenth-century Holy Roman Empire in which geography was possible. I discuss the political, religious, and intellectual fragmentation of the empire and the scholarly aim to transcend this fragmentation in the form of the 'republic of letters'. I discuss the particular role of the German universities for science-making and identify the largely sedentary production of German geography. I finally address the hope of German geographical authors for greater international scientific recognition.

[15] Warf and Arias (2009), 1.
[16] See, for example, Mayhew (2000, 2005); Withers (2006).
[17] Darnton (1982).

My concern in chapter four is to understand the science of geography in print – geography's definition, its classification, and its relationship with other sciences as laid out in the different textual forms. I argue that geography had a stable textual definition – the description of the earth's surface – whereas, geography's meaning, and its demarcation from other fields of study were much debated. I suggest that the conditions of print production and educational practice did have an effect upon geography's meaning and the classification and range of its content.

In chapter five, I address the types of geographical publications – books and periodicals – and discuss their purposes, numbers, and their development over time. I show that geographical books and periodicals experienced a growth in numbers of print and popularity at the end of the eighteenth century. I elaborate on the German aim for 'completeness' which guided geographical print production, and on social improvement through geography as a form of public learning. Analysis of the spatiality of geographical print production shows connections between geographical print production and political decentralisation and religious politics.

Chapter six offers a more detailed analysis of the use of geography and geographical print in education. I explore the debates concerning the benefits ascribed to geographical education and the improvement of geographical learning, especially with respect to methodologies and methods of instruction. The chapter investigates the connection between geographical education and its social goals.

In conclusion (chapter 7), I suggest that 'Enlightenment,' 'Germany,' and 'Geography' were open and fluid categories. My argument, overall, illuminates our understanding of the content, the meaning, the production, and (less easily) use made of geographical knowledge in German states during the 'long' eighteenth century. The thesis is a contribution towards knowing "why and how geography took the shape it did in the Enlightenment".[18] In addressing the relationship between Enlightenment thought and geographical knowledge, I hope to have added to our understanding of the geographies of Enlightenment knowledge and practice with reference to categories –

[18] Livingstone and Withers (1999), 3.

geography, Enlightenment, ‘Germany’ – which were each open to interpretation, and so must, with care, be subject to detailed interrogation.

**2**

# On Geography and Enlightenment: a summary review

## Introduction

This thesis is informed by debates in Enlightenment studies, historical geography, the history of science, and book history. This chapter shows how the thesis speaks to, and is placed within, these different fields of study. There are six main sections. The chapter begins by outlining the interpretative position of the thesis in relation to debates on the nature of the Enlightenment as a geographical phenomenon. In the second section, I address the thematic approaches followed in this work: geography's textual tradition and the context of geographical education. In section three, I address the spatiality of science studies more generally, and elaborate on the 'spatial turn' which has informed this thesis. Section four discusses recent debates in book history in order to explain the methodological approach of this thesis. In sections five and six, I discuss the perspectives of interpretation and analysis against which this thesis has proceeded, that is, I discuss Enlightenment and geography in 'Germany' respectively.

## The Enlightenment debate

During the last decades, the 'Enlightenment' has been widely discussed in different disciplines. One of the most fundamental discussions has concerned Enlightenment's singularity or its plurality. Advocates of a singular or unitary Enlightenment have conceptualised it as a singular historical phenomenon with particular characteristics in place and time mainly shared amongst the eighteenth-century Parisian *philosophers*, or as one particular 'Enlightenment project' shared by philosophers across Europe.[1] Others have viewed the Enlightenment as a unitary movement characterised by the same core values and practices in different places and spaces. Robertson (2005), for example,

[1] Robert Darnton (2003) recently took up Peter Gay's (1966-1969) argument for a single Enlightenment; Jonathan Israel (2001, 2006, 2011) who argues for a radical Enlightenment; Alasdair Macintyre (1981) who suggests an 'Enlightenment project' – a coherent singular Enlightenment.

argues for the "same European-wide intellectual movement," and conceives of a "shared experience of the *one* Enlightenment".[2] In contrast, adherents of a *pluralist* Enlightenment consider different Enlightenments at different spatial levels – local, regional, national, and transnational Enlightenments. Some pluralists have suggested a variety of Enlightenment*s* (a 'series' or 'family' of Enlightenments) characterised by commonalities, conceptualise the Enlightenment as a movement or 'process' characterised by a number of shared and common values, such as the aim for progress and civilisation, the use of reason, the paradigm of utility, and the ideal of human perfectibility. These pluralists therefore consider multiple spatial variations of these commonalities.[3] Several pluralist scholars refer to the Enlightenment as a European movement with an "inner unity," meaning an epoch characterised by a few common features but also by national and local diversity.[4] These scholars emphasise that the Enlightenment was "a space of margins and flows" – a space of variety but also of shared common values.[5] Other pluralists argue for an understanding of a fractured Enlightenment made of multiple Enlightenments on different geographical scales only connected through "a series of interlocking, and sometimes warring problems and debates".[6] Emerson argued "If nothing can be specified in common, there is no sense in talking about variations".[7]

The question concerning the nature of the Enlightenment has, in fact, a long history; it was already of concern to eighteenth-century scholars. German eighteenth-century scholars, most notably Immanuel Kant and Moses Mendelssohn, debated what the Enlightenment was.[8] The pluralist understanding of the Enlightenment is not new either. In fact, it has even been claimed that plurality has become mainstream. When

[2] Robertson (2005), 9, fn 23; Young (2009), 241, reviewing Robertson (2005).
[3] Gay (1966-69), Porter and Teich (1981), Pocock (1999-2003), Umbach (2000), Schneiders (2003a), Broadie (2003), Osterhammel (2006), Sher (2006), Withers (2007).
[4] Schneiders (2003a), xx. See also Bödeker and Herrmann (1987), Umbach (2000).
[5] Withers (2008), 45.
[6] Outram (2005) in Sher (2006), 14; Emerson (2002).
[7] Emerson (2002), 5.
[8] Moses Mendelssohn (1984) wrote is "Über die Frage: Was heißt Aufklären?" which was followed shortly by Immanuel Kant's essay (1784) "Was ist Aufklärung?" Both essays were written in response to Johann Friedrich Zöllner's question in the *Berlinische Monatsschrift* in 1784. See also Livingstone and Withers (1999); Mayhew (2001b).

suggesting his understanding for a European-wide movement, Robertson at the same time acknowledged that plurality has become mainstream. "It seems that pluralism has triumphed," argued Robertson (2005); and he specified "*The* Enlightenment is dead; but many Enlightenment*s* may yet flourish".[9] Umbach (2000) suggested, "The existence of several autonomous varieties of Enlightenment is now widely accepted".[10] Pluralists have, hence, aimed at comprehending how and why the 'where' affected the 'what,' 'when,' 'who,' 'why,' and 'how' of the Enlightenment(s). The importance of the 'where,' that is, the understanding of "the Enlightenment as a geographical phenomenon" has been emphasised and received increased attention recently.[11]

When studying the spatiality of the Enlightenment(s), pluralists have embraced the notion of 'geography' on and across different scales. They have shown that "the Enlightenment was made in different places, meant different things in different places (then and now)".[12] Studies have shown and acknowledged geographical difference on a national scale, as Porter and Teich (1981) demonstrated. Works on a Scottish, English, French, Swiss, Italian, and German Enlightenment have been published.[13] Pluralists have further demonstrated a diversity of movements within and above national context, including regional, local, and transnational levels.[14] Porter and Teich also pointed to differences within the national scale, such as regional differences between the German states based on religion.[15] The role of the local level, including the smaller urban and provincial contexts has, for example, been shown for the Scottish, English, and German context.[16] Pocock (1999-2003) has argued that the Enlightenment did not only differ

[9] Robertson (2005), 3.
[10] Umbach (2000), 26-27.
[11] Withers (2007), xi. See Withers and Wood (2002), and for overviews see Withers (2007), Mayhew (2010b, 2011), and Withers and Mayhew (2011).
[12] Withers (2009), 626; Bödeker and Herrmann (1987); Withers (2007).
[13] On the Scottish Enlightenment see, *e.g.*, Emerson and Wood (2002), Withers (2002b), Withers and Wood (2002), Broadie (2003), Emerson (2003), Dawson and Morère (2004), Towsey (2010); on the English Enlightenment see Porter (1981) and Pocock (1985); on the Enlightenment in France see Hampson (1981) on the Italian Enlightenment see Chadwick (1981); on the Enlightenment in Switzerland see Taylor (1981); on the German Enlightenment see Vierhaus (1979) and Bödeker and Herrmann (1987).
[14] On the role of a local analysis of the Enlightenment see Jankovic (2000).
[15] Whaley (1981) for a Protestant Enlightenment and Blanning (1981) for a Catholic Enlightenment; see also Porter (1990) on a contrast between northern and southern German regions.
[16] For the Scottish "province" see Emerson and Wood (2002) on Glasgow, Allen (2003) on Perth, and Towsey (2010) on "provincial Scotland"; for English provinces see Elliott (2000) on Derby, for an

*across* places but also *in* (the same) place.[17] Transnational elements and perspectives have been emphasised.[18] Arguing for an 'Atlantic' Enlightenment, Manning and Cogliano demonstrate the limitations of national Enlightenment research and stress the Enlightenment as "a network of actively contested discourses and experimental possibilities," and speak of the need "to move beyond regional exceptionalist narratives".[19] Several authors have lately indicated the national and transnational elements of enlightenment communication, particularly the role of correspondence in knowledge exchange between individual scholars and learned societies.[20] Research has also shown Enlightenments outside of Europe.[21] The variety of Enlightenment*s* and the different scales of analysis are finally encapsulated in the *Encyclopedia of the Enlightenment* (2003).[22]

### *Enlightenment studies and the understanding of place*

Whilst recognising geographical differences, pluralist Enlightenment scholars do not necessarily recognise a constructed nature of place – past and present. And those scholars who do not acknowledge a variety of Enlightenment(s) have either dismissed the role of geography altogether, or have, as Robertson (2005), considered geography as "stage" or "determinant" where Enlightenment thought and practice were carried out

---

Enlightenment in Berlin, see Förster (1989) and Emundts (2000). These references are not meant to summarise the extant research on the Enlightenment(s) in these contexts; they are rather meant to signify the variety of geographical scales that has found attention with respect to Enlightenment thought and practice.

[17] Pocock (1999-2003).

[18] Schneiders (2003a, 2003b). Manning and Cogliano (2008).

[19] Manning and Cogliano (2008b), 3.

[20] Rusnock (1999) has pointed to the transnational correspondence network of the Royal Society. Harris (2006) has discussed networks of travel and correspondence; Raj (2007) has examined knowledge travel between Europe and South Asia; Schneider's (2008) on cultures of knowledge in the eighteenth century has shown the transnational scale of scholarly correspondence, including Stuber's (2008) article on the correspondence network of the Bern economic society and Schüttler's (2008) essay on the network of the Illuminati.

[21] While the focus of this thesis is on the Enlightenment in Europe and during the 'long' eighteenth century, I do not want to dismiss research that has shown that Enlightenment thought and practice were not limited to Europe and the eighteenth century. For the 'Atlantic World' more generally, see Canizares-Esguerra (2001) and Safier (2010). For Latin America, see Saldana (2006) and Canizares-Esguerra (2006). Several alternative Enlightenments and modernities across the world and across time can be considered (see Appadurai (1996), Raj (2007)).

[22] Kors (2003). For an historiography see also Livingstone and Withers (1999b).

without notable difference. Mayhew (2010b, 2011) argues that authors such as Robertson (2005) conduct geohistory in the sense of Marc Bloch, Fernand Braudel, and the French *Annales School's géohistoire* who understood geography as an ontology, as an "organising device".[23] Mayhew has summarised the contrasting approaches to Enlightenment thought comparing Robertson's (2005) and Pocock's (1999-2003) arguments: "For Robertson the geographical is a causal category which can help to explain intellectual history […] where for Pocock the geographical is itself a category which has an intellectual history".[24] Mayhew has considered the historian Ethington's (2007) recent call for a "Spatial Theory of History" critically. Ethington's understanding of space is not clearly defined as different from an ontological organising device: "Ethington's putative spatialization of history moves uncomfortably between spatialisation as metaphor and ontology".[25]

Aiming to unravel the (inter)disciplinary messiness concerning the different modes of understanding and conjoining space and time, and strongly advocating a post-positivist understanding of situated knowledge making, Robert Mayhew proposes the term 'geohistoriography' to capture the pluralist trend towards "'geonarrativization', the use of spatial and geographical categories to create different narrative structures for the arguments of intellectual historians".[26] 'Geohistoriographical' studies regard 'geography' in historical analysis as a "nominalist ordering device," that is, "spatiality as a device for narrative structuring".[27] Geographical history (or geohistory/ *géohistoire*), in contrast, uses 'geography' as a means to an end, as a "collection of physical

[23] Mayhew (2011), 417. Alan Baker (2007) traces the history and various understandings of the terms 'geographical history' and 'historical geography,' points to their "multiple meanings," and the particular "lack of coherence and stability" of geographical history (see Baker 2007, 353, 354). He argues that "the difference *in principle* between geographical history and historical geography has often been blurred *in practice*" (Baker (2007), 354).
[24] Mayhew (2010b), 621-622.
[25] Mayhew (2011), 417.
[26] Mayhew (2010b)**,** 613. Concerning messiness: without wanting to draw connections, this reminds of discussions concerning the use and application of geography in the past: "David Livingstone has spoken of the 'situated messiness' of geography as a discourse, of the ways in which geography has meant (and means) different things to different people at different times and how important it is to understand the context behind the production of geographical (and other) texts (using that term to encompass all forms of representation, not alone the written). If, in various ways, geography's history was and is messy, it also is and was *situated* […]" (Withers (1995), 139).
[27] Mayhew (2011), 418; Mayhew (2010b), 619.

conditions which as an assemblage set the stage on which events – social, cultural and intellectual – take place".[28] In doing so, Mayhew rethinks the understanding of the geographical and the historical and the intersection of the two. His argument that "different 'geographies', by which I [Mayhew] mean here the varied spatial scales, settings and networks in which intellectual arguments are being placed by historians, lead to differing narratives about the nature of those intellectual arguments," is reflected in the breath of research on the Enlightenment.[29] Mayhew's proposition to take place and space as a "nominalist ordering device" is also a reminder that researchers should avoid confusing nominalism and ontology.[30] It can further be understood as an invitation to reflect on the concepts and uses of geographical vocabularies, and to conduct more empirical studies on the specificity of place and space: "Consideration of its place-based dimensions, without losing sight of its cosmopolitan dimensions, is helping throw new light on (the) Enlightenment altogether".[31]

Mayhew argues, too, that the Enlightenment debate shows that, "[d]ifferent geographies in this sense become the ground on which different narratives are forged concerning events in intellectual history, in the case of this essay, those of 'Enlightenment'".[32] This thesis acknowledges the broadness of Enlightenment definitions and takes a pluralist stance on the question of the Enlightenment(s). It therefore considers different scales of analysis, including the local, regional, and national scale. This thesis considers varieties and commonalities of the Enlightenment – across time, place and space. It studies the Enlightenment(s) as an intellectual movement, and not as a discrete historical phenomenon.[33] It sees it as a movement which stressed critical thinking and the use of reason, human perfectibility, the advancement and utility of the sciences. The thesis is further based on an understanding of place as a constructed entity. More particularly, this thesis is concerned with geographical inquiry – with the ways in which geography and geographical knowledge

[28] Mayhew (2010b), 619.
[29] Mayhew (2010b), 626.
[30] Mayhew (2011), 418.
[31] Withers (2009), 657.
[32] Mayhew (2010b), 626; Mayhew (2011).
[33] Giles (2008).

were made in the Enlightenment German states. Having elaborated on the multiple geographical scales and contexts of (the) Enlightenment(s), I shall now attend to research on Enlightenment geography.

## Geography in the Enlightenment: literal definition(s) and different meanings in different places

Having discussed the role of spatial dimensions in the Enlightenment(s) and in science making, and having stressed the constructed nature of place, I now turn to the history of the science of geography during the eighteenth century. Livingstone and Withers (1999) have stressed that "there is still much to know about why and how geography took the shape it did in the Enlightenment".[34] This thesis aims to contribute to better understanding *what* shape geography took during the Enlightenment and *why* it took that shape. It is a response to recent re-emphases to recognise and study the "differences in what geography was and how it worked in the Enlightenment" and to explore geography's "different interpretation[s] by different communities".[35]

The geographies of Enlightenment *geography* have been discussed for various contexts and for various scales. The significance of place as an "epistemological framework" and a "nominalist ordering device" for understanding geography's meaning and purpose has been disclosed by several scholars.[36] "The relevant contexts of geography are many," as Godlewska emphasised.[37] It has been agreed that eighteenth-century geography "describing the earth," and that geography occasionally included theorising and constructing conceptual frameworks.[38] Concerning understanding, meaning, and purpose of geography and geographical knowledge, recent research in historical geography has stressed the role of context – the "plurality of conceptions of geography across time and space".[39]

---

[34] Livingstone and Withers (1999), 3.
[35] Withers (2011d), 50, 54.
[36] Withers (2009), 657; Mayhew (2011), 418; see also Withers and Livingstone (1999a and 1999b); Withers (2002a, 2006, 2007).
[37] Godlewska (1999), 4.
[38] Glacken (1967), Heffernan (1994 and 1999), Mayhew (2000).
[39] Withers and Mayhew (2002), 13.

This section focuses particularly on the production and dissemination of geographical knowledge. Using examples from studies on eighteenth-century Britain, France and the United States, I suggest that meaning, and purpose of geography in the eighteenth century need to be understood as context-specific, that is, that "there was not one but multiple conceptions of geography".[40] This section is not and cannot be an attempt to write a "historical geography of geographical knowledge" or geography.[41] I shall address three themes: I first show that geography had a textual tradition; then I elaborate on its production and dissemination in academic institutions and, thirdly, I attend to geographical instruction in educational spaces such as schools, and private homes.

### *Geography's textual tradition in the Enlightenment*

Analysing geography's textual tradition and, particularly, books of geography, Robert Mayhew has advanced our understanding of what was considered the science of 'geography' in the Enlightenment.[42] Mayhew has shown that the analysis of British geography books published between 1600 and 1850 reveals a distinct definition of geography: "Geography was a coherent body of knowledge about a clearly-defined object, namely the situation of places on the earth and the content of those places in natural and human terms".[43] Mayhew explains that in being the practice of describing the earth, geography was concerned to offer a particular scale of spatial description – the earth. Geography was thus different from cosmography, the study of the world (universe), and from chorography, the description of a country, as well as different from topography which discussed "an even smaller portion of land".[44] "Geography's task, as represented in these definitions, was to determine relative location upon the earth and to describe the phenomena to be found in those locations".[45] Explicitly or implicitly such geography books revealed a twofold understanding of geography: a mathematical

[40] Withers and Mayhew (2002), 26.
[41] Withers (2001), 1.
[42] Mayhew (1998a, 2000. 2001).
[43] Mayhew (2000), 30.
[44] Mayhew (2000), 27.
[45] Mayhew (2001), 388.

(general) tradition and a descriptive (specific) tradition.[46] The former concerned knowledge "about the situation of places in terms of their longitude and latitude" and usually followed Ptolemy.[47] The latter "acquired further useful information about the natural and human world in the manner exemplified by Strabo".[48] In sum, Mayhew argues that early-modern geography had a "stable definition" from the seventeenth until the early nineteenth century – it was "a clearly defined practice during that [early modern] period," a "primarily a textual practice".[49]

Mayhew's work offers a methodological concentration on geographical "compendia, gazetteers or dictionaries". Geography was characterised by a body of knowledge that was organised in a particular way.[50] Travel writings, for example, "lacked the organisational control of geography" and were, consequently, not considered part of geography.[51] Mayhew, thus, uses order in distinguishing geographical texts from other forms of writing. Other realms of (geographical) knowledge might be considered part of the latter, also if not represented in geography books.

"Compendia, gazetteers or dictionaries" were not the only textual and epistemological forms in which geography was articulated, – at least beyond Britain.[52] Brückner (1999, 2006) has considered geography's role in post-Revolutionary America. He finds geography in the "written materials and reading instructions that Americans were using to 'write the earth'".[53] Brückner has elaborated on the role of geographically-informed Northern American textbooks, by Noah Webster, and geography books, by Jedidiah Morse in creating an American identity through reading, speaking, and practicing geography; Brückner reveals multiple geographical textual forms: "property plats and surveying manuals, decorative wall maps and magazine maps, atlases and geography textbooks, flash cards and playing cards, paintings and needlework

[46] Mayhew (1998a, 2000, 2001). Mayhew (1998a) stated that geography was structured into a general (mathematical) and specific (descriptive in a narrow sense) tradition.
[47] Mayhew (2000), 28.
[48] Mayhew (2000), 28.
[49] Mayhew (2001), 388, 383; Mayhew (1998a), 393.
[50] Mayhew (2000), 31.
[51] Mayhew (2000), 30.
[52] Mayhew (2000), 31.
[53] Brückner (1999), 314.

samplers".[54] Edney (1999) implies a similarly wide conception of geographical texts when he addresses the accessibility of geographical texts "ranging from widely available published texts to tightly controlled manuscript collections".[55]

Periodicals have been less discussed and considered in geography's historical contexts. Fischer *et al*. (1999) demonstrate the variety of media used in German Enlightenment discourse and for the dissemination of scientific knowledge. Periodical media included newspapers, magazines, journals, and almanacs. Focusing particularly on geography, Griep (1999) has indicated that periodicals played a role in the German discourse on the nature and purpose of geography. He pointed to journalists, historiographers, teachers, university lecturers, and scientists across the German states who contributed articles or edited such media.

Whilst largely agreeing with Mayhew's (2001) argument of a "stable definition" of geography in its texts, other scholars have demonstrated that the classification and purpose of geography were not "stable" across Europe but, context dependent.[56] Heffernan (1994) has pointed to Anne-Robert-Jacques Turgot's understanding of geography as the study of the present as opposed to history as the study of the past – the "accumulated record of the every changing store of geographical knowledge".[57] Following Heffernan, Turgot did not regard geography as 'the left eye of history' as common in Europe and beyond.[58] Instead, Turgot argued that "what is geography today becomes history tomorrow".[59]

Second, whilst geography in Britain was widely regarded as divided into mathematical (general) and descriptive (particular or special) geography, some scholars in other countries classified geographical knowledge differently.[60] It has been shown that Philippe Buache, geographer to the French King from 1726-1773, differentiated

[54] Brückner (2006), 4.
[55] Edney (1999), 191.
[56] Mayhew's (2001), 383.
[57] Heffernan (1994), 335.
[58] Mayhew (1998b), 758; Brückner (2006).
[59] Heffernan (1994), 335.
[60] Bowen (1981); Mayhew (2000).

between natural, mathematical, and historical geography.[61] Withers's (1993) study suggests that a similar concept was expressed in Diderot and D'Alembert's *Encyclopédie* (1757). Edme Mentelle (together with Philippe Buache) split geography education into three main parts: mathematical, physical, and political (historical).[62] Turgot divided geography further into other sub-parts. He classified political geography into "*theoretical* political geography and *positive* or *historical* geography".[63] Bowen has argued that Anton Friedrich Büsching proposed to organise what was considered the textual tradition of geography along the two fields of natural and civil (political) geography.[64]

In emphasising the role of print and its production, Mayhew has attended less to the role of exploration in the production of eighteenth-century geography. Other scholars have, likewise, stressed the role of print and pointed to cabinet 'geographers'.[65] Whilst in London, geographical book production was mostly undertaken by historians or Grub Street journalists who have been described as "hack writers," geographical writing in France was undertaken by professional geographers – by "*géographes de cabinet*".[66] Besides these French "*géographes de cabinet*," Broc (1975) has identified a second type of 'geographers': the "voyageurs".[67] The crucial role of travellers and explorers – that is, people in the field – seems unquestioned and has been widely examined in the literature.[68] Livingstone (1992) has called the scientific voyages of the eighteenth century the "greatest empirical stimulus to theoretical questions".[69] Bowen (1981) has shown that some eighteenth-century geography even equated geography solely with cartography or exploration, so for example, Reverend John Blair.[70] The relationship between exploration – primary observation – and the ordered compilation of geographical knowledge into print was a matter of debate also between contemporaries.

[61] Bowen (1981); Heffernan (1994).
[62] Heffernan (2005), 290.
[63] Heffernan (1994), 334.
[64] Bowen (1981).
[65] Broc (1975), Outram (1999).
[66] Mayhew (1998a), 402; Broc (1975), 475.
[67] Broc (1975), 475.
[68] Downes (1971); Broc (1975); Livingstone (1992); Edney (1999); Terrall (2002); Withers (2007).
[69] Livingstone (1992), 125.
[70] Bowen (1981).

Outram (1996) has elaborated on the dispute concerning the appropriate place and method of acquiring reliable knowledge and making geography between the sedentary naturalist Georges Cuvier and the travelling scientist Alexander von Humboldt. Whilst Cuvier prioritised the space of reflection and distance in the cabinet or laboratory, von Humboldt stressed the immediate experience in the 'field'.[71]

***Beyond text: geography in the universities***

Geography was also produced in spaces other than print. Withers uses Brewer's notion of "epistemic spaces" to refer to other spaces – or contexts – such as manuscript forms, dictates, practices such as mapping, and lecturing in academies and societies.[72] Context mattered for understanding and purpose of geography. I shall briefly elaborate on geography in universities as one theme of the literature and this debate.

Geography – as a science – had a place in European university instruction. This included lectures by professors holding a chair in geography and carrying out geographical research, and by lecturers holding a different academic chair. There has been work demonstrating the role of geography in context of university curricula and academic teaching in Britain.[73] Withers and Mayhew suggest that higher geographical instruction in early modern British universities was still based on Renaissance pedagogy; it was a twofold practice: historical (descriptive) and mathematical (general) geography.[74] At the same time, the content and methods of geography education differed across places and times. Multiple patterns of geographical instruction in Britain have been identified: differences between Scottish and English universities, as well as within England and Scotland.[75] Current research suggests that in almost all cases, geography was taught by professors of other disciplines, such as astronomy and history. Emphasis, however, differed across universities. In Oxford, focus was on descriptive geography considering it "the left eye of history" and strongly linking it with classical

[71] Outram (1996).
[72] Brewer (2004), 175 in Withers (2006), 712.
[73] Mayhew (1998b); Withers and Mayhew (2002); Withers (2006).
[74] Withers and Mayhew (2002); see also Cormack (1997).
[75] Mayhew (1998b); Withers and Mayhew (2002); Withers (2006).

scholarship.[76] In Cambridge, geography was also joined with history but mathematical geography was emphasised there more strongly. In Scotland, due to its instructional independence, teaching could be shaped by Scottish Enlightenment ideas which opened the doors for Newtonian philosophy and the mathematisation of geography.[77]

For France, De Dainville (1940) and Godlewska (1999) have shown that in eighteenth-century France university teaching was hardly more advanced than secondary instructions. Within France, higher geographical education lacked coordination.[78] Heffernan and Withers have outlined different geographical instructions in Parisian institutions including lectures on mathematical, physical, and political geography. In the Parisian École Normale, Edme Mentelle taught mathematical geography with an emphasis on measurement, physical geography describing human-environment relationships, and cultural or human geography in comparative context. Mentelle also aimed to promote statistical geography – a form of descriptive geography – but was unsuccessful.[79] Staum (1987) has shown that the research focus of the Parisian Academy of Sciences was on mathematical geography and navigation. When the new French National Institute of Sciences and Arts was founded in 1795, however, human geography was taught as part of the 'Class of Moral and Political Sciences' until 1803.[80]

Withers also points to physical geography by Horace Bénédict de Saussure who was professor of philosophy in Geneva.[81] What is important to note are the different classifications, content *foci*, and purposes of higher geographical instruction and research.

### *Beyond text: geographical education in schools and at home*

Several authors have elaborated on geography's role in school education and at home in different contexts in Europe and the United States. The role of private education, public

[76] Mayhew (1998b), 758; with chronology being the other eye of history (see Mayhew (1998a)).
[77] Mayhew (1998b), Withers (2006).
[78] Godlweska (1999).
[79] Heffernan (1994, 1999, 2005), Withers (2006, 2007).
[80] Staum (1987).
[81] Withers (2007), 224-225.

lectures and professional (also military) education has been emphasised.[82] For eighteenth-century Britain, Mayhew has shown that content and focus of geographical education differed by students' classes and future professions. Mayhew has pointed to a variation by "social status and aspirations of the student".[83] In grammar schools and dissenting academies, geography was taught with a humanist focus, in academies with a commercial or naval orientation, and, in general, schools with varied foci related to future professional goals based on a three-fold schedule.[84] Mayhew has consequently stressed that geography was a "facilitator" for educational aims.[85] Withers has shown that domestic geographical instruction was often practical in character. The use of games and terrestrial and celestial globes was common and suited the combined instruction of geography and astronomy. The utilitarian aspect of geographical education endorsed Enlightenment ideals over polite sociability and the growing commercialisation of society. For Withers, "What geography meant depended on where it was taught, by whom, and how".[86]

In France, geography teaching was associated with professional training: civil engineering and military careers – in Jesuit and state colleges alike.[87] Geography was further part of humanist education – in institutions under Jesuit control and in secondary state schools, as suggested by the demand for Edme Mentelle's secular geography textbooks from the 1760s onwards.[88] Mentelle criticised the state of French education and the hegemony of Catholic (especially Jesuit) teaching methods. He embraced, rather, a method of mapping and structuring geographical knowledge, which indicates a connection with the French Renaissance, the methods of Peter Ramus. Mentelle's instruction may therefore have been an expression of anticlericalism – a rejection of

[82] Hettner (1927); Mayhew (1998a); Mayhew (1998b); Withers (1998b); Godlewska (1999); Withers and Mayhew (2002); Withers (2007); Elliott and Daniels (2010).
[83] Mayhew (1998b), 732.
[84] Mayhew (1998b) has shown that curricula designed for general schools by Joseph Randall, for example, included four different teaching programmes: for pupils aiming for university studies, for military and naval professions, for future gentlemen, and for business men (Mayhew (1998a), 748).
[85] Mayhew (1998b), 768.
[86] Withers (2007), 233.
[87] Godlewska (1999).
[88] Godlweska (1999) and Heffernan (2005).

Catholic and Aristotelian orthodoxy.[89] Mentelle assigned geographical education, however, only a limited purpose: the ordering and communication of useful facts – a view shaped by his "political expediency as well as intellectual conviction".[90]

In the United States, geography was significant in elementary education during the eighteenth century. Geographical knowledge was part of basic language learning – of learning how to read and to write – and was, thus, part of general education. Geographical teaching was, hence, begun at an early age.[91] Brückner has pointed to the use of Rousseauian teaching principles, to a focus on local knowledge, and the method of an "imagined trip" in the United States.[92] Geographical instruction was a means to nation-building, though, for instance, spelling and pronouncing American toponyms. Noah Webster aimed to mediate between regionally dispersed and socially different citizens and to build national identities through what has been called 'geoliteracy'. Jedidiah Morse used geography books to build citizenship and spread ideas of a national identity through statehood.[93] Morse adhered to common eighteenth-century notion of geodeterminism which argued that climate defined race and culture; he argued, particularly, for a direct relationship between moral values and place.[94]

In sum, a number of aspects and context regarding geographical knowledge during the Enlightenment have been examined. The context is important when studying the meaning and purpose of geography in the Enlightenment. Print is important in understanding geography as a science. At the same time, geography was produced and communicated beyond print. What follows will address debates on the relationship between textual definitions and context. It considers a wide range of texts in association with Mayhew's argument to find evidence in "the form of geography books". My research is not limited to "compendia, gazetteers or dictionaries," but rather examines

[89] Also known as Pierre de la Ramée, see Heffernan (2005).
[90] Heffernan (2005), 295.
[91] Brückner (2006) who explained, "Geographical reading begins with the most essential, basic element of alphabetic comprehension" (Brückner (2006), 155).
[92] Brückner (2006), 160 and 167.
[93] Brückner (2006), 160 and 167; see also Withers (2007), 187-192.
[94] Brückner (2006), 113-114, 156-157, 246-247.

various kinds of print including scientific journals and textbooks.[95] My research also attends to geography's authors and editors to understand the "character of geography".[96]

## The spatial study of science

The thesis is consequently based on an understanding of the role of place in the making of science and of geography. My interpretative stance and appreciation of spatial difference is informed by the 'spatial turn,' that research turn in historical and science studies that emphasises the constructed nature of knowledge, and studies spatial and temporal variations of scientific knowledge. 'Spatiality' as a research lens – "conventionally allocated to human geography" – has gained considerable attention across disciplines involved in the historical and present study of science, and the humanities and social sciences more generally. Spatiality concerns the "geography of and in things, be they places, people, books, ideas, or representational procedures".[97] Space and place have become widely-used categories of analysis. Brewer (2004) has called 'space' the "master metaphor of late twentieth-century epistemology".[98] Withers (2009) has pointed to the "material and the metaphorical power of space".[99] Thinking geographically about science studies is more than metaphorical: this shall be demonstrated below.[100] After a brief overview of the 'spatial' turn's history, I shall elaborate on debates that have informed my research and suggest that also studies in book history have been informed by 'spatial' debates.

### *The beginning of the 'spatial' turn*

Historically speaking, "interest in the spatiality of knowledge has been of significant magnitude in the past 20 years and competing conceptualizations of spatiality have

[95] Mayhew (2000), 19, 31.
[96] Mayhew (2000), 19.
[97] Livingstone (1995a), 5; Withers and Mayhew (2011), 449.
[98] Brewer (2004), 171,
[99] Withers (2009), 657.
[100] See Withers and Mayhew (2011), 445.

skewered diverse studies of scientific practice".[101] The roots of the spatial interest in scientific knowledge go back to Kuhnian constructivism which "began to dismantle universalist aspirations to indicate that scientific knowledge might instead be plural in gestation and *local* in character".[102] Thomas Kuhn's *The Structure of Scientific Revolutions* (1962) was a strong argument for the plural and, even, socially constructed nature of scientific knowledge. Kuhn suggested that science did not progress in linear ways, but underwent periodic revolutions. Kuhn suggested that the constructed understanding and practice of science were based on a dominant 'paradigm'. He explained the dominant 'paradigm' as a set of practices of science-making agreed upon by the respective community of scientists and passed on through training and socialisation. New paradigms evolved when the dominant epistemologies, practices, and standards of science-making were challenged by new ways – by 'extraordinary' science or research – resulting in a 'crisis' or 'revolution'.[103] Focused as it was on the natural sciences, Kuhn later acknowledged criticism from scholars who, for example, stressed the possibility of multiple co-existing paradigms, especially in the humanities and social sciences. Kuhn's argument may itself be understood as a suggestion for a paradigm – in that it stressed the constructed nature of science.[104]

Scholars in social theory, especially those working on actor-network theory (ANT) concerned with human and non-human interaction in science-making, and on the sociology of scientific knowledge (SSK) and science and technology studies (STS) have brought forward arguments for the situatedness of knowledge and practice. In ANT,

[101] Powell (2007), 311.
[102] Powell (2007), 310, my emphasis. See also Shapin (1998), 6. This is not to dismiss that there was an interest in the epistemology of science studies – in the constructed and social aspects of science production before Kuhn. Carl Popper published his rejection of positivist science and stressed the role of empirical falsification with his critical rationalism (Popper 1959). Other scholars further pointed to Max Weber, Robert Merton, and Michael Polanyi (Turner 2008). Some years after Kuhn, Paul Feyerabend pointed to the plurality of scientific methods and philosophical relativism (Feyerabend 1978a, 1978b).
[103] Kuhn (1962, 1970). Kuhn understands a paradigm as "the entire constellation of beliefs, values, techniques, and so on shared by the members of a given community" (Kuhn (1970)*, Postscript*, 175). In response to critics, Kuhn later suggested using the phrase "disciplinary matrix" (or matrices). The term "paradigm" has prevailed in the literature though (see Kuhn (1970)*, Postscript*, 175). In 1969, Kuhn also referred to a possible "set of paradigms," his focus remained on the natural sciences tough (see Kuhn (1970), 297).
[104] Barnes (1982).

Bruno Latour has most addressed the local dimension in science-making most notably in his *Science in Action* (1987). Other actor-network theorists, Michael Callon and John Law, have pointed to the spatial sensibility of human and non-human interaction in the process of producing and circulating scientific knowledge.[105] The Edinburgh 'Strong Programme' around David Bloor and Barry Barnes studied the sociology of scientific knowledge (SSK) – the sociological dimension of science-making. These scholars together understand scientific knowledge production as a social activity – knowledge as a social product. Their aim was to better understand the role of human behaviour and relations in space with reference to the construction of science. Science-making had a local and, hence, a geographical component or aspect.[106] Feminist positions on science and technology studies have sparked interest in the *spatial* situatedness of (scientific) knowledge. Donna Haraway's (1988) essay in feminist studies on 'Situated Knowledges' was another expression of the advocacy for the constructed – embedded and situated – nature of science-making, experience, and meaning. Haraway pointed to the constructed nature of epistemology and scientific method and to studies that regarded science as a "power field".[107] Haraway understood embodiment as location.

Following these works, and especially Edinburgh's 'strong programme,' a comprehensive body of research on the spatiality of knowledge has emerged. Whilst Ophir and Shapin could hope in 1991 that "Perhaps the days in which ideas floated free in the air are truly nearing an end," it seems now to become understanding "that science has a geography and that scientific knowledge bears the marks of particular locations have themselves become accepted facts, at least within this community of scholars".[108] That science should be considered not as "floating free" but as an activity "grounded in space" has been emphasised repeatedly, and is now considered "hardly novel or metaphysically challenging".[109]

---

[105] Law (1986); Callon (1986); Law (2009). The phase "spatial sensibility" is a derivation of Steven Shapin's "geographical sensibility" (see Shapin (1998), 6).
[106] Barnes (1985); Bloor (1991); Barnes *et al*. (1996).
[107] Haraway (1988), 577.
[108] Ophir and Shapin (1991), 16; Jöns *et al*. (2010), ix.
[109] Withers (2002a), 9-10; Withers (2009), 653.

### *Geographies of sciences*

Since the first review by Ophir and Shapin (1991) the interest in science studies has generated a "vibrant interdisciplinary field of research" encompassing works by geographers, historians, historians, sociologists, philosophers, and anthropologists of science.[110] This wide inter-disciplinary interest in the role of places and spaces for the construction of scientific knowledge allows us to speak of a '*localist* genre,' a 'localist' or 'geographical' turn, and a 'spatial' turn in science studies.[111] This involvement of the various academic disciplines has also led to the emergence of "*different* geographies of science".[112] A number of approaches and debates have arisen. Several scholars have recently reviewed the variety of concepts in the geography of science, and have offered different typologies.[113]

Aiming to encourage research on the spatiality of science by historical geographers, David Livingstone in 1994 pointed to scholars of different disciplines who placed 'spatiality' on their research agenda. He discussed social theorists such as Michel Foucault and Charles Taylor, anthropologists such as Clifford Geertz and Mary Douglas, sociologists such as Anthony Giddens and John Urry, and spatial theorists such as Edward Soja and Henri Lefebvre. Livingstone aimed to draw historical geographers' attention to these works and the connection between science and spatiality. Livingstone also distanced himself from works in the geography of science based on environmental determinism such as Harold Dorn's 1991 *Geography of Space*.[114] In 1995, Livingstone elaborated even more extensively on the role of space in historical studies by reference to scholars such as Michel Foucault, Edward Said, and Paul Carter.[115] Livingstone

---

[110] Jöns *et al.* (2010), ix.
[111] On '*localist* genre' see Ophir and Shapin (1991), 5; on 'localist' or 'geographical' turn see Shapin (1998), 6; and Livingstone (1995a), and on the 'spatial' turn in science studies see Livingstone (1995a) and Finnegan (2008). Localism can be understood as one expression of the spatial turn (see Secord (2004).
[112] Powell (2007), 309.
[113] For recent overviews see, *e.g*., Naylor (2005); Powell (2007); Finnegan (2008); Withers (2005a, 2009); Mayhew (2009); Jöns *et al*. (2010); Livingstone (2010); Agnew and Livingstone (2011); Withers and Livingstone (2011).
[114] Livingstone's demarcation has been re-emphasised by several historical geographers since (see Withers and Livingstone (2011) for a critique on Dorn (1991). This resembles Mayhew's (2010a, 2010b) cautioning against a conflation of nominalism and ontology.
[115] Livingstone discussed Michel Foucault's works on the relationship between local space and power; he dwelled on Edward Said's notion of 'traveling theory,' Said's emphasis on circulation and translation of

further discussed how social and cultural theorists, especially Clifford Geertz, Erwin Goffman, and Anthony Giddens, have demonstrated an interconnection of spatial setups and social practices; Livingstone also pointed to the role of geography in philosophy, including the work of Edward Casey and his understanding of 'situated rationality,' Charles Taylor's notion of 'moral space,' Nicholas Wolterstorff's implicit understanding of context as social space, and Donna Haraway's understanding of one's social position as a located positionality. After surveying studies in historical and cultural geography, history and the sociology of science that embraced the connection between science and space, Livingstone then mapped a possible future taxonomy of studies in the historical geography of science. Pointing to the incoherence in terms of theory of place and space, he proposed: first, studies of science in regions with attention to the conditions of science making, including the role of institutions, social, political, religious, and intellectual conditions, and second, "the social space of scientific sites" in institutions, conferences, field sites, including "microworlds" such as the laboratory, natural history museums, botanic and zoological gardens, statistical offices. Livingstone pointed to the national, subnational, and local scale, and stressed the need to study the relations between these scales.

In his 2002 work, Livingstone proposed a "spatial taxonomy of scientific knowledge" to "identify some of the ways in which scientific knowledge and its circulation have been shaped by spatial factors".[116] Livingstone divided his analysis by processes of knowledge construction – production and consumption – and added a "geographical biography" to account for the (spatiality) of the involved actors (scientists), their lives and biographies. Regarding the "places of production," Livingstone pointed to venues such as "the laboratory, the museum, the field, the hospital, […] cathedrals" which he saw as places in a "rudimentary spatial taxonomy" of "the production segment of the science circuit".[117] Livingstone distinguished spaces of production further into "spaces of manipulation," "spaces of expedition," "spaces of

---

ideas and theories, and his understanding places of spaces as constructed by nature. Livingstone pointed to Paul Carter's reference to the role of place-naming by the example of the 'discovery' of America.

[116] Livingstone (2002), 12.

[117] Livingstone (2002), 13.

presentation," and "spaces of circulation".[118] The first concerned places of manipulation of natural order though experiment, such as the laboratory. The second, concerned "spaces of expedition" – role of the field where "first-hand experience" happened.[119] "Spaces of presentation" he described as spaces of collection and presentation of objects in, for example, museums, botanical gardens, and zoos (spatial arrangement). "Spaces of circulation" finally mirrored Latour's "centres of accumulation"; Livingstone understood them as "nodal points in the flow of information," nodal points in the circulation and communication of information which is requires standardisation.[120] Concerning "sites of consumption," Livingstone differentiated between two geographical inquiries: print (or "textual space") and "geographies of reading".[121] "Geographical biographies" finally concerned the actor – the "living" and were meant to stress the "bifurcation between life and work".[122]

Naylor (2005) distinguished three aspects of spatial studies that have been undertaken. First, "micro-geographies of science, the places where scientific activity takes place" – what others have called "sites" or "localities".[123] This has focused upon the laboratory, the field, the museum and the theatre.[124] Second, Naylor points to "science and its context" including urban, regional and national contexts.[125] Third, Naylor demands to consider science as an expression of space, that is, to explore the internal "cartographies of science".[126] Agnew and Livingstone (2011) identify "broadly five different ways in which geography is currently understood as entering into knowledge production and circulation". They differentiate between ethnographic research; studies of the trajectories of consequences of colonial knowledge; approaches based on philosophies of phenomenology; local-to-global studies, and a recent shift

[118] Livingstone (2002), 16.
[119] Livingstone (2002), 18.
[120] Latour (1987); Livingstone (2002), 24.
[121] Livingstone (2002), 29, 30.
[122] Livingstone (2002), 32, 33.
[123] Naylor (2005), 3; see also Livingstone (2002) and Withers (2002a).
[124] Shapin (1988); Outram (1996); Schaffer (1998); Clark *et al*. (1999); Saada (2003).
[125] Naylor (2005), 3.
[126] Naylor (2005), 3.

"from knowledge production to knowledge circulation and consumption".[127] These different taxonomies on the spatiality of geographical knowledge demonstrate a concern with different processes and scales of knowledge production, and an engagement with the relevant actors of scientific knowledge and the sites of science making.

When Steven Shapin (2003) criticised the continued emphasis on the significance of place for scientific activity arguing, "Where else could science take place but in places, and how else could it travel but across spaces?," he intended to shift focus to *empirical* demonstrations of the significance of geography, that is, to showing the "relevant similarities and differences between places."[128] Richard Powell (2007) repeated this call to move away from work that demonstrates *that* the geography of science and place *matters*, to research that shows "exactly *how* location matters".[129]

What Powell (2007) did not mention, however, is that not only historians (and particularly historians of science) but also historical geographers have pointed to the importance of showing "*how* and *why* the where influenced the what of science".[130] Following Livingstone's (1995) "rudimentary agenda" for the "spatial components" in historical geography, a comprehensive body of research on the (historical) geographies of knowledge and practice has been produced – not only for "the development of a nascent field of *geographies of science*," but also precisely to offer empirical insights into the role of place and space for the making of scientific – and particularly geographical – knowledge and practice.[131]

Livingstone (2005a) summarised the significance of this trend suggesting, "The real question is, how do particular spaces matter in the production, consumption and circulation of science? At what scale of analysis is the delivery of an identifiable set of scientific claims to be apprehended?"[132] Historical geographers are not alone in this

[127] Agnew and Livingstone (2011), 8.
[128] Shapin (2003), 90.
[129] Powell (2007), 312-313, 321, my emphasis. See Ophir and Shapin (1991); Shapin (1998); Secord (2004).
[130] Withers (2002a), 16, my emphasis.
[131] Livingstone (1995); 27; Powell (2007); see also Mayhew (1998a and 1998b); Withers (1998b); Withers and Livingstone (1999a); Mayhew (2000); Withers and Mayhew (2002); Livingstone (2003); Withers (2006); Jöns (2007); Taylor *et al.* (2008).
[132] Livingstone (2005a), 100.

endeavour; historians and sociologists of science have likewise looked at processes of knowledge' production, reception, and consumption. Empirical studies have targeted places and spaces of knowledge *production* such as the laboratory, the field, and the cabinet.[133] Sites of collection, circulation, and knowledge consumption have included the museum, the theatre, and various educational spaces and sites.[134] Spaces and places of reading, translation, and reception have been addressed.[135]

The continued cross-disciplinary importance of the focus on 'processes' is reflected in Withers and Livingstone (2011), for whom these concerns amount to two main aspects: "the making and meaning of science *in place*," and "science's movement *over space*".[136] At the same time, processes have been a matter of debate as well – especially with regards to priorities of analysis and the appropriateness of a processual division and focus. Regarding the processes of scientific knowledge making, historians of science and historical geographers have demanded a stronger focus on the spatiality of knowledge reception, whilst historians and sociologists of science have stressed a need to particularly study knowledge circulation and movement.[137] Claims for a stronger focus on the 'travel' of knowledge have been expressed and repeated. [138] In 1991, Ophir and Shapin first examined the importance of locally-produced knowledge and its movement: "How is it, if knowledge is indeed local, that certain forms of it appear global in domain of application? Is the global – or even the widely distributed – character of, for example, much scientific and mathematical knowledge an illusion? If it is the case that some knowledge spreads from one context to many, how is that spread achieved, and what is the cause of its movement?"[139] As Shapin (1995) pointed out, "The localist thrust of recent SSK [sociology of scientific knowledge] has generated one of the central problems for future work. If, as empirical research securely establishes,

[133] Shapin (1988); Schaffer (1998).
[134] See Outram (1996), Naylor (2002), Saada (2003), Withers (2006) for an overview of spaces of tertiary geographical education.
[135] Clark *et al.* (1999); Oz-Salzberger (1995); Montgomery (2000); Kontler (2001); Rupke (2000, 2005); Withers (2005b); Daston (2004); Mayhew (2005a); Keighren (2006, 2010); Livingstone (2005a, 2005b, 2010); Withers (2010a).
[136] Withers and Livingstone (2011), 2.
[137] See Withers (2006) and Livingstone (2010) on geographies of scientific knowledge reception.
[138] Ophir and Shapin (1991); Shapin (1995); Secord (2004).
[139] Ophir and Shapin (1991), 15-16.

science is a local product, how does it travel with what seems to be unique efficiency?"[140] Shapin's (1998) paper on knowledge travel and meaning was an invitation for more research on "how knowledge is made in specific places and also on how transactions occur between places".[141] Shapin argued then that the "geographical sensibility" "has not been taken far enough".[142] Shapin evaluated Bruno Latour' work on the role of institutionalisation and standardisation for knowledge travel and replication as "at best an incomplete response" since Latour regards travel as a "normative order" and neglects the moral aspects and questions of trust as well as differences in meaning in different contexts.[143]

The "problem of travel," has since not only been approached in the history of science.[144] Other academic fields have paid attention to the circulation of knowledge.[145] This includes sociological research on the circulation of ideas, and historical work in the light of cultural exchange and *histoire croisée*.[146] This wide concern for knowledge travel has allowed identifying a "'travelling turn' in the social history of science".[147] At the same time, the understanding and analytical approach to knowledge travel has been discussed. When Harris (1998) took up Ophir and Shapin's (1991) and Shapin's (1995, 1998) postulation to study how and why knowledge *travels*, he suggested considering the 'problem' of travelling knowledge more complex, that is, as "two rather separate questions rolled into one".[148] Harris proposed to privilege "the problem of travel *in the science making*" over "the problem *of making science travel*," Harris saw the latter as "Shapin's chief concern".[149] More precisely, Harris proposed focusing on "the modes and motivations of travel," which involves three aspects of knowledge geography: the

[140] Shapin (1995), 307.
[141] Shapin (1998), 6-7.
[142] Shapin (1998), 6.
[143] Shapin (1998), 7.
[144] Shapin (1995), 307.
[145] Harris (1998); Simões *et al.* (2003).
[146] On the circulation of knowledge see Castells (1996), Bourdieu (2002); on *histoire croisée* see Espagne (1994), Espagne and Werner (1988), Reichardt (1988), Jordan and Kortländer (1995), Werner and Zimmermann (2006).
[147] Turnbull (2002), 273, in Powell (2007), 321.
[148] Harris (1998), 271.
[149] Harris (1998), 271, my emphasis.

"geographies of place, movement, and social organization".[150] The first concerns the "static geography of place" (the 'where'), the second knowledge movement, (the kinematic 'whence'), and the third relates to the "dynamics of travel: why and by what means did all these movements take place".[151]

By captioning this three-fold approach of knowledge geographies as 'knowledge travel,' Harris (1998) suggested considering the links between the processes of knowledge construction. Harris's suggestion is echoed in Secord's (2004) proposition to use 'knowledge in transit' as the primary lens. Secord (2004) stresses the "centrality of processes of movement, translation, and transmission," and proposes a better understanding of the geographies of knowledge by examining the connections between the various processes of knowledge construction, which "means eradicating the distinction between the making and the communicating of knowledge".[152] Secord argues that more insights into the geographies of knowledge can be derived in realising "the centrality of knowledge in circulation – of science as a form of communication".[153] This stress on the 'how' and 'why' of knowledge circulation has been re-emphasised by geographers.[154] Building on Castells's (1996) distinction between 'spaces of place' and 'spaces of flow,' the geographers Taylor *et al.* (2008) have argued that there has been too much "focus on place at the expense of flows".[155] Their differentiation between places and flows is not meant as a categorical separation, but to stress their connection and so indicate the links between knowledge processes: "the research choice is not which space to study but rather which space to use as the starting point of analysis".[156] In stressing "knowledge-making itself as a form of communicative action" and the connection between flow and place, these scholars propose considering the relations between horizontal scales of analysis – between (constructed) processes of knowledge

[150] Harris (1998), 270, 273.
[151] Harris (1998), 273.
[152] Secord (2004), 654, 661.
[153] Secord (2004), 655.
[154] Taylor *et al.* (2008); Jöns (2007, 2008).
[155] Taylor *et al.* (2008), 394.
[156] Taylor *et al.* (2008), 396.

life, such as the production, circulation, consumption, and reception of science.[157] Some scholars have revealed connections and entanglements between the various processes. Some have shown the role of movement for knowledge production and have drawn attention to how scientific knowledge is mobilised between places and spaces.[158] Others have revealed links between consumption, reception, and public (re)production.[159]

Conceptually, Agnew and Livingstone (2010) take up Livingstone's (2002) and Secord's (2004) argument to consider a "knowledge circuit": "To be sure, this distinction [between knowledge production, circulation and consumption] should not be pressed too strongly for a clear boundary line between the production and consumption phases of the knowledge *circuit* cannot be drawn".[160] Pointing to the relationship between knowledge travel and transformation, Agnew and Livingstone (2010) acknowledge the connection between knowledge making and motion: "In a sense, therefore, knowledge is made as it circulates; it is never made completely in one place and then simply consumed in another. And this realization renders troublesome any simple bifurcation between knowledge production and consumption. Both are implicated in the intellectual circuitry of knowledge enterprise".[161]

Another and related approach to better understand 'how' and 'why' place matters for the construction of knowledge, has been the attention to different scales – the study of science's making on and across different spatial levels – local, regional, national, and transnational. Historical geographers have pointed to the possibility of approaching geographies of science "through scales of spatial analysis," such as "specific venues," "regions," and to "discriminate between different kinds of scientific spaces – such as spaces of experiment, spaces of exhibition, and spaces of expedition".[162] Some have stressed "the importance of *different* scales of analysis".[163] Others have pointed to the difficulty of finding the "*correct* scale of analysis". For one, "Precisely what the correct

[157] Secord (2004), 661.
[158] On role of movement for knowledge production see Latour (1999), Withers (2004); on the mobilization between different places see Jöns (2007), Taylor *et al.* (2008), Withers (2009), Jöns (2010).
[159] Livingstone (1995, 2010); Withers (2010a).
[160] Agnew and Livingstone (2010), 8, my emphasis.
[161] Agnew and Livingstone (2010), 11.
[162] Livingstone (2010), 5.
[163] Livingstone (2005a), 99, my emphasis; and Withers (2011b), 103, respectively.

scale of analysis is at which to conduct any particular enquiry into the historical geography of science – site, region, nation, globe – has to be faced".[164] But here a number of recent studies have pointed to the constructed nature of scales, and have shown how scales conflate. It has been demonstrated that knowledge does not (only) move on certain scales, but (also) *across* them. Withers (2011b) suggests that it is necessary "to illustrate scale as a relational matter by addressing the possibilities of working *across* different scales".[165] Mitman *et al.* (2004) point to studies in the history of science that "reach across larger spatial and temporal scales".[166] The benefits from considering the relations between scales have been indicated. Harris (1998), for example, demonstrated how the local and the global interact and conflate in the case of science-making via early modern long-distance corporations. Raj (2007) has shown that interaction when demonstrating how scientific knowledge – hybrid and mutable – circulated across long-distances between Europe and Southern Asia.

In addition, geographers have not only acknowledged the constructed nature of scales but also questioned their analytical usage. After Marston's (2000) emphasis on the social construction of scale and the entanglement between the production of scale and space, discussions on scale, especially concerning vertical scales (the local-to-global continuum), have been vigorous in geography. The debate has involved diverse responses, including the suggestion to fully abandon scale as an analytical concept in human geography.[167] As an alternative, Marston *et al.* (2005) have suggested a 'flat ontology,' an alternative that discards vertical (local-to-global) and horizontal (centre-periphery) scales alike.[168] They thus "propose that it is necessary to invent – perhaps endlessly – new spatial concepts".[169] Sharing Marston *et al.*'s (2005) concern regarding the privilege of scale over other spatial concepts, Leitner and Miller (2007) point to several flaws in Marston *et al.* (2005), and consider a flat ontology an "impoverished understanding" of the power relations involved in the construction of scale. Instead of

[164] Livingstone (2005a), 99.
[165] Withers (2011b), 103.
[166] Mitman *et al.* (2004), 4.
[167] Marston *et al.* (2005).
[168] Marston *et al.* (2005), 422.
[169] Marston *et al.* (2005), 422.

eliminating scales as analytical categories, they rather "favour an approach that recognizes a diversity of spatialities".[170] Historical geographers have also recently stressed the analytical potential of scale(s) and their wish to "retain its analytic usage".[171] Instead of a complete elimination of scales, awareness and acknowledgement of their constructed and changing nature and a consideration of the empirical consequences have been reemphasised.[172] Reflection might there be an alternative to elimination, as Mayhew (2010b) summarises in pointing to the relationship between scale and historical knowledge (re)construction: "In each case it is quite rightly suggested that different narratives are generated if one takes a different spatial scale (global or hemispheric) or a different spatial arena (continental) as one's starting point and that key elements of intellectual and social history therefore look different according to one's geographical imagery".[173]

These debates around different scales of analysis are related to the endeavour of understanding 'how' and 'why' place and space matter for the construction of (scientific) knowledge. For Finnegan, "As with particular spaces, scale can be regarded as [the] dependent or independent variable".[174]

As mentioned above, the interdisciplinarity of science studies has resulted in various concepts and applications of geographical terms, especially regarding 'place' and 'space'.[175] Geographers have long acknowledged and re-stressed the constructed nature of geographical vocabularies, including "notions of *scale*, *hierarchy*, *distribution*, *location*, [...] *maps* and *mapping* from the geographical lexicon," and especially regarding "*place* and *space*".[176] Following Henri Lefèbvre's (1991 [1974]) argument of the social production of space, social scientists and geographers have stressed that

[170] Leitner (2007), 121.
[171] Withers (2011b), 103.
[172] Finnegan (2008); Mayhew (2010b); Withers (2010b); Withers (2011b); Withers and Livingstone (2011).
[173] Mayhew (2010b), 614.
[174] Finnegan (2008), 384.
[175] Withers (2009); Mayhew (2010b, 2011); Withers and Livingstone (2011).
[176] Withers and Livingstone (2011), 3.

"space is a social construct".[177] Rupke (2011) stresses awareness of the (re)constructed nature of place and space: "they are also *assignments* of places by us historians – assignments that reflect our place and serve to instrumentalize the prestige of science for a range of self-serving purposes".[178] Rupke demands continuing reflection, and postulates "a 'metahistorical' critical look at our own stance".[179] Being aware of the constructed nature of these terms, it seems hardly surprising that understanding and use of spatial vocabularies have differed – past and present. Concepts and applications of place and space have been debated – within and between disciplines, which has generated encyclopaedic overviews of past and current thoughts.[180] Place is hence not only an important, but also "one of the most problematic" concepts – and that certainly accounts for space too.[181]

My concern here is not to repeat or delimit in detail existing theories on space and place. It is, rather, to sketch the main contours of the debate in the geographies about the understanding and application of concepts of place and space as conditioning agents in our study of the geography of intellectual phenomena. When Shapin (2003) argued that spatial situatedness of the production and circulation of science was evident, he was not alone in his reflection on the understanding of geographical terms and categories.[182] Questioning the understanding of 'geography' Ryan (2003) also stressed, "Indeed, one might wonder what could *not* be included under the umbrellas of 'geographical knowledge' or 'geographical discourse'".[183] The central point of Shapin's (2003) critique was his perception that historical geographers, and particularly David Livingstone (2003), were committing "something like a category mistake" by seeing space and place as a 'factor': "So the spatiality of science is not a 'factor' in the way that, say, religious affiliation or class position or national identity are factors, where you can easily imagine science being made, justified and circulated without these things

[177] Marston (2000), 221; see Marston (2000, 2005); Withers (2009); Mayhew (2010b, 2011); Withers and Livingstone (2011).
[178] Rupke (2011), 450.
[179] Rupke (2011), 450.
[180] Dünne and Günzel (2006); Günzel (2009); Withers (2009); Hubbard and Kitchin (2011).
[181] Withers (2009), 639.
[182] Shapin (2003), 90.
[183] Ryan (2003), 198.

being a necessary part of the story".[184] Shapin (2003) rather demanded empirical investigation to identify "relevant different and similarities between places".[185] Already in 1994, Livingstone pointed to possible future research studying space-making "conditions" such as intellectual, political, and religious landscapes. In his lecture from 2001, he did not reject the complexity of space either.[186] Withers and Livingstone (2011) highlight several "conditions" that can be understood as place-making 'factors': "Scientific theories are shaped by the prevailing political, economic, religious, and social conditions, as well as a host of other culture norms in different geographical localities, and, not least in the natural and field sciences, they may bear the stamp of the environments within which they are constructed".[187] Further, they point to "questions regarding site, institutional organization, and social relationship in place".[188]

There has been particular criticism from sociologists of science regarding a lack of attention to the role of "*social* conditions" for science's making in place, and a lack in focus "on the relationships between *thought* and its *social* setting".[189] Geographers and historians of science have repeated this critique lately. Livingstone (2002) stated, a "social history of physical geography is a real *desideratum*".[190] Nicolaas Rupke (2011) calls it "*ironic* that the trend of the past few decades to scrutinize science in terms of its social conditions and situations has hardly been accompanied by a twin fashion to explore history of science in the same probing way".[191] The role of *social* factors for scientific knowledge construction has been targeted by sociologists of scientific knowledge (SSK), and sociologists, anthropologists, and psychologists of science and technology studies (STS) focusing on present science making – something that has been termed the 'sociological' turn.[192] Studies of the *social* construction of scientific knowledge have suggested an understanding of scientific knowledge as a product of

[184] Shapin (2003), 90.
[185] Shapin (2003), 90.
[186] See Livingstone (2002).
[187] Withers and Livingstone (2011), 1.
[188] Withers and Livingstone (2011), 13.
[189] Ophir and Shapin (1991), 9, my emphasis.
[190] Livingstone (2002), 79, in Powell (2007), 321.
[191] Rupke (2011), 449, my emphasis.
[192] Collins and Evans (2002), 236.

social interaction.[193] Social interaction might be considered one possible spatial "condition" affecting the local creation of knowledge. As Withers and Livingstone (2011) acknowledge, we might need to investigate *what* factors affect(ed) local knowledge making and processes of situating knowledge.[194]

In sum, that the meaning of 'geography' differed across time and place is a key argument. Different understandings of 'geography,' 'place,' and 'space' can lead to different narratives. From the debates discussed we may identify three themes with regards to the relationship between the 'historical,' the 'geographical,' and (scientific) knowledge construction. First, we can reconsider our understanding and construction of applied categories and factors and the role of our imageries for the (re)construction of our narratives, that is, reflect on the researchers' categories, and their relation to science making across time and place. Second, we can consider the (past and present) actors' categories as a subject of investigation, and aim at identifying and reconstructing their understanding in relation to knowledge making. Third, whether taking researchers' or actors' categories as lens, addressing the relation between knowledge and categories can be considered a two-way relationship. In the case of the geography of science, this implies attention to the role of place and space for the creation of knowledge and the place-making role of knowledge itself.

**Book history and the methodological approach of the thesis**

This section shows that debates amongst books historians concerning the suitability of processes as analytical lens resemble discussions in the geographies of science on the "knowledge circuit" discussed above.[195] In addressing questions of knowledge production, travel, and consumption, book historians not only demonstrate an appreciation of the constructed nature of knowledge and its manifestation in print, but also show an awareness of the interpretative consequences. These recent debates in book history, I want to suggest, address questions of agency and approach, which can inform

[193] Barnes (1982); Barnes (1983); Bloor (1991); Shapin (1995); Yearly (2005); Sismondo (2010) for an overview on STS.
[194] Withers and Livingstone (2011), 13.
[195] Agnew and Livingstone (2010), 8.

debates in the history of science and historical geography. I begin by discussing the role of processes and agents (books and actors) in book history, before elaborating on the thesis's methodological approach and interpretative stance in the light of these debates.

***Book history and the question of actors and 'processes'***

The notion of knowledge circularity, as discussed amongst historians of science and geography, has its parallels in Darnton's (1982) 'communications circuit' – the first model in book history that described the life cycle of books. Darnton's model centred on the multiple agents involved in the life cycle of books, such as authors, publishers, booksellers, and readers. He did not prioritise the processes of print production, but the actors involved in producing books. Darnton's (1982) model was, nevertheless, the propagation of a 'circuit' which avoided a defining beginning and end, unlike chain models in cultural transfer studies.[196]

In response to Darnton (1982), Adam and Barker (1993) rejected his focus on actors and, instead, suggested prioritising "processes" or "events" such as "publication, manufacture, distribution, reception, and survival".[197] Rubin (2003) has recently criticised the "enormous, wide-ranging body of scholarship" in book history that centres on the practices of production, distribution, and reception. Rubin points to these processes' linkages and argues that any separation imposes "artificial distinctions on phenomena that are actually connected: publishers distribute as well as produce works; readers may be ordinary members of the broad educated public or literary critics, teachers, librarians, or ministers who are involved in dissemination as well as functioning as an audience that influences production".[198] Instead, Rubin takes the position of Darnton – the perspective of the actors involved in the communications circuit – the "publishers, printers, and authors" using the book as medium. Darnton has recently acknowledged the shift in emphasis initiated by Adams and Baker "from the people" to "the book itself and the processes through which it passed at different stages

[196] Espagne and Werner (1988); Kortländer (1995); Reichardt (1988).
[197] Adams and Baker (1993), 50; Darnton "revisite" his original essay from 1982 in 2007; Darnton (2007), 504.
[198] Rubin (2003), 557-578.

of its life cycle".[199] Darnton, however, justified his model by reference to the importance of the author and the books, which he considered both underplayed by Adams and Baker and others (see Fig 2.1 and 2.2).

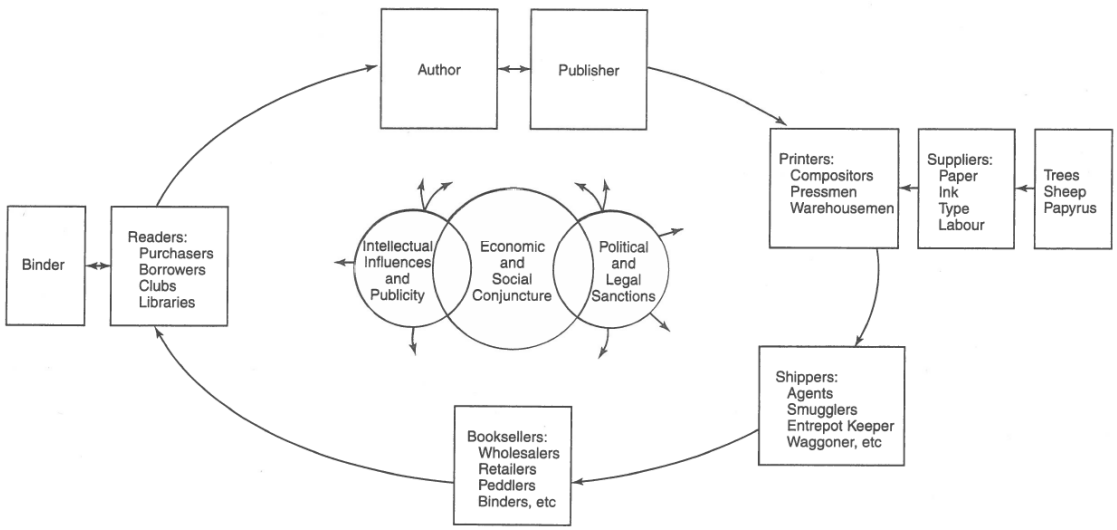



*Figure 5.1* The communications circuit

Fig. 2.1: Darnton's communications circuit. (Darnton (1982), 68).

[199] Darnton (2007), 504.

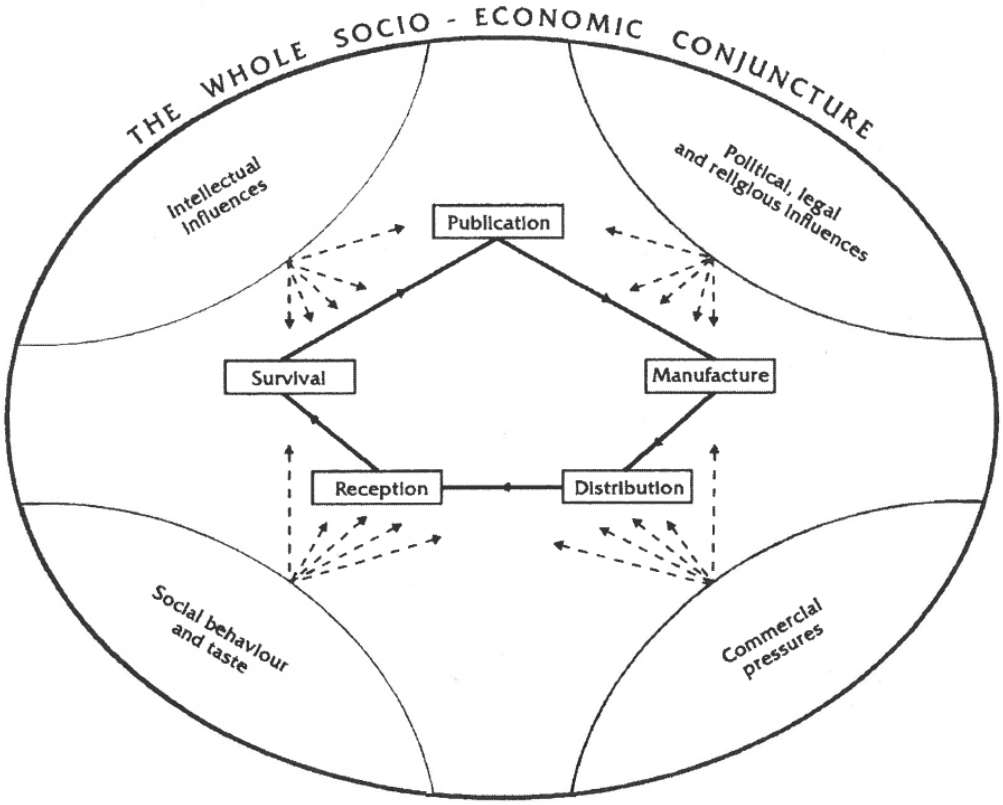



Figure 2.2: Adams and Barker's circuit in 1993. (Darnton (2007), 503).

Essentially, this debate in book history raises questions of perspective and agency.[200] Focusing on people's or books' mobility alone is insufficient to understand the complex nature of knowledge construction and movement, an argument also made by cultural transfer scholars.[201] Other scholars have pointed to the multiplicity of contacts or agents involved in the travel of knowledge, including people, books, journals, and specimens.[202] A focus on the different material forms of knowledge production and its travel, and on the involved human and non-human 'actors' (such as instruments and architectural conditions) might provide further insights into the specificity of place and space. Certainly, there has been research in this regard, but a

[200] As Finnegan (2008) has recently stressed.
[201] Paulmann (1998); Kortländer (1995); Withers (2002b); Manz *et al.* (2007).
[202] Latour (1999); Ogborn (2002); Withers (2002b); Livingstone (2003); Mayhew (2005a); Finnegan (2008).

stronger focus on the material conditions *in relation to place and space* might provoke a 'material' turn in science studies as argued in history.[203] This ambition to account for both – processes and actors – is reflected in Livingstone's (2002) essay which considered both processes and actors; and Secord's (2004) understanding of "publishers, editors, printers, and so forth" as "aspects of production".[204] Secord's understanding shows the role of perspective and priority.

### *The thesis's methodological approach*

With reference to geography and Enlightenment in the German states, this thesis considers and investigates the actors' understanding of place and space and their concepts' relation to past knowledge making. When reviewing the historical geographies of science Livingstone (1995a) referred to Casey (1993) who called for a scrutiny of place in order to "to understand what place is all about. This entails a sustained reflection on what it means to be in place – in the first place".[205] Livingstone (1995a) acknowledged Casey's (1993) argument but rather proposed "to focus on the epistemological and ethical significance of place by reflecting on what has come to be known as 'situated rationality'".[206] This doctoral work considers the investigation of past spatial concepts as helpful in advancing our understanding of (scientific) knowledge making.

Aiming to better understand 'why' and 'how' place and space matter, and in connection with recent debates in book history, this thesis investigates knowledge forms, actors, and processes (practices) in and through which geography and geographical knowledge were being produced and communicated. Knowledge forms, actors, and processes (practices) are taken as research lenses. With this approach, I hope to contribute to the mentioned debates in the (historical) geographies of knowledge and science and, particularly, to historical geography. This thesis also pays attention to the actors' categories and their understandings of scale. From a historian's perspective, this

[203] Bennett and Joyce (2010).
[204] Livingstone (2002); Secord (2004), 670.
[205] Casey (1993), xvii.
[206] Livingstone (1995a), 12.

research is approached assuming temporally and spatially positioned knowledge (construction), and hence takes a pluralist understanding of Enlightenment as a "symphony with multiple variations".[207]

The thesis, thus, rejects presentist readings of history, and embraces a nominalist and, hence, constructed understanding of space and place. The acknowledgement of geographical difference and the constructed nature of place are informed by the above discussed 'local turn' in science studies and historical geography.

Robert Mayhew (2000, 2001) has argued that 'geography's history' has been effaced by essentialist viewpoints on the 'histories of geography'.[208] Mayhew has criticised earlier studies such as Sauer (1932), Hartshorne (1939), Bowen (1981), Martin and James (1981) for their "essentialist historiographical format".[209] Such studies' aim to identify a timeless essence of geography signify both an essentialist and a presentist view and disregard geography's changing history. Mayhew argues that we should see "geography's history as a passage of differences", and proposes that geography's timeless identity is solely its continuity.[210] Mayhew calls for the study of history in Oakeshottian terms, that is, to see the world as a multiplicity of "constructed modes of experience" – amongst these experiences (the study of) history.[211] Mayhew has claimed that previous studies concerning geography's past have not discerned "how geography was defined at the time" and "lacked an adequate conception of geography".[212] He stresses the multiplicity of possible narratives – with respect to context, scale, and perspective.[213] Other historical geographers have taken similar positions. Heffernan (2003) has suggested considering multiple histories of geography: "There is no single history of 'geography', only a bewildering variety of different, often competing versions of the past".[214] One point of importance to emerge from this is that geography varies in

[207] Sher (2006), 15.
[208] Mayhew (2000), 12.
[209] Mayhew (2000), 8.
[210] Mayhew (2000), 17; Mayhew (2001).
[211] Mayhew (2001), 384.
[212] Mayhew (2000), 9.
[213] Mayhew (2010b, 2011).
[214] Heffernan (2003), 3; see also Mayhew (2010b), Withers (2011c).

its geography. So, too, one might imagine, did geography in the German states in the Enlightenment.

## Enlightenment(s) in the German states

The role of different scales for understanding Enlightenment thought and practice is suggested in the literature on the eighteenth-century German states. This section details the ways in which the Enlightenment in the German states exemplifies some of these debates over scale, national unity, and the place of geography. I show that the literature identifies an Enlightenment in the German states which can be considered as both a German Enlightenment as well as an Enlightenment in 'Germany'. My analysis starts with a comment on the German nation and Germany during the eighteenth century before elaborating on the German Enlightenment. The role of place is then discussed before touching on the interconnectedness of local, regional, national and international enlightenment discourses. I will show that overall, the literature shows a gap in research on the media and communication of Enlightenment ideas.

A conceptual problem is that a 'German nation' or 'Germany' as country did not exist.[215] The Holy Roman Empire of the German Nation was a political union of more than 300 larger and smaller states and independent cities. The Empire's territorial and geo-political borders changed over time and sometimes reached into areas including today's Poland, Hungary, and Russia. It has been suggested that the German nation was only formed during the eighteenth century and that it was as fragmented, incoherent, and diverse as the geo-political location of 'Germany'.[216] Kiran Patel has argued recently that national identities and their formation may be better understood through the adoption of a transnational perspective, which also justifies to use the term 'national' in the context of an emerging German identity . Accordingly, I will refer to a German nation in this essay – a convention also applied in the secondary literature.[217] The boundaries of 'Germandom' are as 'slippery' as the geo-political boundaries of the Holy

[215] Vierhaus (1987).
[216] Vierhaus (1987); Blitz (2000).
[217] Patel (2003, 2004).

Roman Empire and its states. Whether today's Austria was part of the German Enlightenment is viewed differently in the literature. Vierhaus considers the Habsburg lands part of Germany.[218] Other scholars, in contrast distinguish between the notions of German and Austrian.[219] These authors refer to an Austrian Enlightenment and an Enlightenment in Austria. Switzerland has as well been addressed separately. ImHof and Taylor have examined the Enlightenment in Switzerland; and Zurbuchen has argued for a Swiss Enlightenment.[220]

Acknowledging the plurality of Enlightenment definitions, Pütz (1979) offers an archaeology of the term 'Enlightenment' in the German context. In his book *Die Deutsche Aufklärung* (1979), Pütz argues that the conceptualisation of Enlightenment in the German context changed from a narrow to an extended understanding which he calls a "tendency to progressive universalisation of the Enlightenment term".[221] Pütz sees a gradual development of Enlightenment research in six stages beginning in the eighteenth century. Having mainly begun with a focus on religion motivated by philosophy, debates extended to intellectual, cultural, national, and social aspects. Pütz's argument is re-emphasised in more recent works.[222]

'German Enlightenment' and 'Enlightenment in Germany' are not clearly distinguished in the literature. Both terms are often used interchangeably and are meant to express specificities particular to the German states. Whether the German states parts of the Habsburg lands were part of the German Enlightenment is answered differently by scholars. Wangermann (1999, 2003) specifically identifies an Austrian Enlightenment and hence differentiates between a German and an Austrian Enlightenment (even if the Austrian Enlightenment involved a reception of the German). He points to the particular changes under Maria Theresa and her son Joseph II. As pointed out earlier, Vierhaus (1987) and also Umbach (2000), in contrast, consider the German-speaking parts of Austria part of the German Enlightenment.

---

[218] Vierhaus (1979, 1987).
[219] Wangermann (1981, 2003); Lowood (1991); Reb-Gombeaud (2003).
[220] ImHof (1970); Taylor (1981); Zurbuchen (2003).
[221] Pütz (1979), 188.
[222] Vosskamp (1999); Rosenberg (1999).

The 'German Enlightenment' is in one way distinguished by the strong role of the German universities.[223] The notion of enlightened absolutism and the close relationship between state sovereigns and the estate of the educated ('*Gebildete*') is emphasised as a distinctive German characteristic which Porter has called an "Enlightenment from 'above'."[224] German *Aufkärer* often felt loyalty towards their principalities which is believed to have prevented great socio-political tension – in contrast to some of the French *philosophes* who, more often, defied the French monarchy.[225] The close relationship between enlightened scholars and political rulers is illustrated in the example of Kant's famous essay 'What is Enlightenment?' from 1784. In that essay, Kant described the politics of Frederick the Great, ruler of Prussia at the time, as promoting tolerance and freedom of thought. Kant argued, "this age is the age of enlightenment, that is, the age of Friederich [Frederick the Great]".[226]

The role of art, music, and fiction for the German Enlightenment has been pointed out as well as nationwide debating societies, political clubs, newspapers and journals.[227] Vierhaus (1979) denotes the theological-philological emphasis in enlightened Germany, the pedagogic character, the less critical but rather (practical) reform-oriented intention, a concentration on practical, patriotic-educational and administrative activities, and the belief that changes ought to happen through a gradual alteration of consciousness and behavioural morals (and not revolution). Finally, differences between Protestant and Catholic areas have been pointed out as particular characteristics of the German 'Enlightenment'.[228]

***Regional and local diversities of the German Enlightenment in 'Germany'***

Despite the scholarly expression of a number of distinguished characteristics and commonalities regarding Enlightenment in 'Germany,' the term 'German

[223] Vierhaus (1987); Whaley (1981); Blanning (1981).
[224] Porter (1990), 57. See also Whaley (1981), Blanning (1981), Porter (1990), Blanke (1999).
[225] Porter (1990).
[226] Kant (1784), 491. See also Schmidt (1996), 2, and Umbach (2000), 26.
[227] See Saada (2003) on the role of art and music. See Lowood (1991), Fischer *et al*. (1999), Umbach (2000) on the role of societies and media.
[228] Vierhaus (1979, 1987).

Enlightenment' may be considered an umbrella term for a variety of sub-national specificities. I shall now elaborate upon some of the spatial specificities of the Enlightenment in Germany conveyed in the literature. During the eighteenth century, German states differed among each other in several respects. Even though Vierhaus regards the differences between Protestant and Catholic Germany as a specific feature of the German Enlightenment, he considers the differences distinct enough to delineate a 'Catholic Enlightenment'.[229] Political and cultural reforms occurred first in the Protestant states (mostly central and northern Germany). The Catholic states, especially Bavaria and the Habsburg lands, addressed the changes in Protestant Germany and introduced reforms only during the last decades of the eighteenth century and with a different focus – for example, in the emphasis on primary education and the re-establishment of Catholic universities.[230] Porter's (1990) perspective went beyond Germany. He saw commonalities amongst areas of the same religion across Europe. This view is shared by Reb-Gombeaud (2003) who suggests that the Catholic reform movement intended to "fight the Protestant dominance through the claim of a particular Catholic Enlightenment".[231] Pointing to the confessional differences in Germany, Blanning (1981) argues that "the Catholic Enlightenment was the work of the principalities" and supervised by the respective rulers.[232]

Vierhaus has emphasised the principality's political role rooted in the historic influence in defining the dominant religion.[233] The particularity of the states' Enlightenment path and state politics is also expressed in Wangermann's emphasis on Maria-Theresia's and Joseph's II political intentions behind the reforms in the Catholic Habsburg lands.[234] The importance of religious state politics is finally expressed in their varying tolerance towards other religions despite the historically defined state religion. The academic discussions on the 'Jewish Enlightenment' (related to the works of Moses

[229] Vierhaus (1987), 91. See also Vierhaus (1979). He uses the term 'Germany' for what I refer to as 'German states' in this thesis (see chapter 3).
[230] Vierhaus (1987); Blanning (1981).
[231] Reb-Gombeaud (2003), 171.
[232] Blanning (1981), 122.
[233] Vierhaus (1979, 1987).
[234] Wangermann (1981, 2003).

Mendelssohn) in connection with the '*Berliner Aufklärung*' and the '*Preußische Aufklärung*' demonstrates Prussia's particular religious politics.[235] The link to Berlin as a centre of the Jewish Enlightenment in Germany also touches on the role of local differences during the Enlightenment in 'Germany'.

Other aspects of state politics have been identified. The practical and literary consequences of censorship laws for writers, publishers and book sellers are illustrated in the example of the '*Wöllnerschen Religionsedikt*' in Prussia in 1788. Until 1792 censorship was imposed on the majority of publications in order to strengthen the Lutheran state church. As a result, journals and publishing institutions moved outside of Prussia.[236] The degree to which publishers took risks, as argued by Darnton and Porter, is yet to be researched in detail.[237] Umbach (2000) has further argued that a state's size was significant for its prince's interest in other European Enlightenments. She suggests that larger states such as Prussia and Austria rather looked to France, while smaller states felt closer to the English Enlightenment. Prussian and Austrian rulers governing large states that required comprehensive and centrally-organised bureaucratic administrations favoured French rationalist, theoretical, and centre-oriented concepts. The rulers of small German states advocated political pluralism in the Empire and feared Prussia's and Austria's centralist ambitions.[238] Consequently, rulers of small states tended to prefer the English "decentralised manner in which enlightened reforms were implemented".[239] British empiricism seems to have entered most small states. Some states, however, rejected the mechanistic approach to nature and the individual; for instance in the electorate of Weimar-Saxony where Goethe and Herder strongly defended Neohumanist positions. Lowood (1991) has demonstrated that activities differed across regions. He has argued that societies tended to vary depending on type and size of the political entities (states versus free cities, smaller versus larger states).

[235] On Berlin Enlightenment see Emundts (2000) and the Prussian Enlightenment see Möller (1974).
[236] Vierhaus (1987); Fischer *et al.* (1999).
[237] Porter (1990), 45; Fischer *et al.* (1999).
[238] Umbach (2000), 31, 56.
[239] Umbach (2000), 56.

Schneiders (2003a) even argues that every principality underwent its own Enlightenment path.

Questions of the local scale are also significant in understanding the German Enlightenment. The institutional make-up in particular locations was decisive. The universities' central role for the origination and dissemination of Enlightenment ideas has been subject of study.[240] Particularly Halle and Göttingen have been pointed out as leading universities in the 'north'.[241] Blanning (1981) and Wangermann (2003) suggest that the Protestant universities, particularly Leipzig, Jena, Halle, and Göttingen, served as sources for later Catholic reform – triggered by a Catholic "academic migration".[242] Wangermann (2003) has pointed to Leipzig, Halle, and Leyden. Pozzo and several others accentuate Königsberg.[243] Saada (2003) has further pointed to the theatre as a vector of the German Enlightenment – as a place of moral education for citizens and princes. Saada (2003) also denoted that theatres were long forbidden in cities were universities and churches were present.

Concerning trans-local communication, Schröder (2001) identified that already at the end of the seventeenth century "almost every larger German city had its own newspaper" and that due to the lack of a capital the media in Germany was distributed across many cities in Germany resulting in a unique density of media in Europe.[244] Fischer *et al*. (1999) identified several cities as particularly important media centres. During the first half of the eighteenth century, Leipzig, Halle, Hamburg, Berlin, Göttingen and Zürich were the key cities. In the course of political and cultural changes, during the second half of the century, provinces attracted media, and centres of a second order developed. The former publication centres strengthened their positions, and Zürich in particular became an asylum for writers and publishers mostly from the Southern German Catholic areas.

[240] Blanning (1981); Vierhaus (1987).
[241] Whaley (1981); Möller (1986); Porter (1990); Laudin (2003).
[242] Blanning (1981), 121.
[243] Brunschwig (1974); Möller (1974); Oberhausen (2002).
[244] Schröder (2001), 123.

***Dissemination of Enlightenment ideas***

It has further been emphasised that – despite such differences – Enlightenment discourses and practices occurred on and across these spatial scales, including the transnational level.[245] Ammermann (1983) has addressed German Enlightenment communication and suggested that letters functioned as substitute for a missing central metropolis such as London or Paris. Fischer *et al*. (1999) argue that the media formed a particularly dense net across the German states.[246] Supra-regional journals were distributed across the Empire. Kronick (1962) showed the relatively high number of German periodicals compared to other countries, and denoted their significance for the facilitation of German Enlightenment knowledge circulation. The infrastructure improved especially during the last decades of the century, supported by an improved road network and increasing literacy. Religious differences between states could hinder as well as enhance media exchange. Publishers located where they saw a potential for the formation of a national culture and where regional discourses flourished at the same time.

Besides the dense net of media, societies were spread across the empire. Lowood (1991) has emphasised the local importance of societies in Enlightenment Germany. Overall, Werner Krauss has claimed that the centres of the *German Aufklärung* were the largest cities: Leipzig, not Dresden, Berlin, not Potsdam, Hamburg, not Copenhagen, Göttingen, not Kassel or Hanover.[247] Fischer *et al*., thus, speak of "entwined structures of societal communication".[248]

The role of exchange 'above national context' has been illustrated, which demonstrates the international effect upon the German Enlightenment.[249] Umbach (2000) has suggested that "foreign models were central to the German Enlightenment" evident in journal content.[250] Trans-national relations have been indicated in works which identify relations between the Scottish and the Protestant German

[245] Schatzberg (1973); Fischer *et al*. (1999); Umbach (2000).
[246] See also Schatzberg (1973); Schröder (2001); Zaunstöck (2003).
[247] Krauss in Whaley (1981).
[248] Fischer *et al*. (1999), 14.
[249] Klemme (2000); Robertson (2005).
[250] Umbach (2000), 27.

Enlightenment.[251] German Enlightenment figures periodically lived in other European countries.[252] Ahnert (2008) has pointed to the connections between Enlightenment thought in the German states and the United States of America.

In sum, the literature presented agrees that there was a German Enlightenment and that it occurred in and across the German states. What is debated is the concrete concpetionalisation, the forms taken. Different aspects of the German Enlightenment occurred in different places and at different times. The secondary literature suggests that the Enlightenment in 'Germany' was both locally and regionally diverse and, yet, bound up with national features as an Enlightenment in 'Germany'. German communication networks at and across local, regional, national, and international scales have been identified as crucial (and see chapter 3).

To better understand the scope and range of the Enlightenment in the German states, more research on the protagonists, the institutions, the media, and communication has been demanded.[253] This includes further research on the intellectual community, the political rulers, and the history of German media.[254] Also more research on science and geography in the 'long' eighteenth century might shed further light on our understanding of German Enlightenment thought and practice.

## Research on Enlightenment German geography in the Enlightenment

Compared to research on other national contexts, such as Britain, geography and geographical knowledge in Enlightenment German states are relatively understudied as a whole. Besides the few general statements of geography's history in Germany mentioned above, only a few empirical studies have been undertaken. Scholars have mainly targeted selected individuals and particular institutions. Research on particular figures has included Immanuel Kant, Anton Friedrich Büsching, Christoph Daniel Ebeling, Eberhard August Wilhelm von Zimmermann, Johann Gottfried Herder, George

[251] Haakonssen (1990); Oz-Salzberger (1995); Kontler (2001).
[252] Wiesehöfer and Conermann (2002); Carter (1999).
[253] Bödeker and Herrmann (1987).
[254] See Fischer *et al*. (1999); Griep (1999); Blanke (1999); Zaunstöck (2003).

and Reinhold Forster, and Alexander von Humboldt.[255] The sites of geography's practice in the German states have been of some but not defined concern. Research has been conducted on the University of Göttingen, the College in Brunswick, and the universities in Erlangen, Kiel, Jena, and Tübingen: the number of institutions studied with respect to the large number of German universities is, relatively, small, and the studies' depth varies.[256] When turning to the role of geography in school and private education, the situation is even poorer. Geography in school and private lessons is mentioned in some writings, but no overview exists.[257]

This section discusses some general trends of eighteenth-century German geography, as pointed out in the existing literature. I particularly point to the role of the University of Göttingen, and the understudied nature of geographical debates carried out in geographical print across the German states. In conclusion, I attend to the research gap this thesis aims to address.

***German geographical particularities: debates in and struggles of geography***

Kühn (1939) and Banse (1954) have pointed to a European-wide upswing of geographical interest which they explain as part of the unfolding of new political and economic circumstances. Colonial politics and world trade led to an increasing need for geography books. Knowledge in navigation, earth measurement, and cartography advanced mathematical geography in addition to being of political value. Scholars in the German states observed the new world politics of the eighteenth century with curiosity, though they hardly took part in it. Geography further profited from advancements in the natural and historical sciences. World histories for learned businessmen contained

[255] On Immanuel Kant see May (1970), Richards (1974), Bowen (1981), Stark (2001), Elden and Mendita (2011); on Anton Friedrich Büsching see Kühn (1939), Bowen (1981), Plewe (1986), Hoffmann (2000), Withers (2007); on Christoph Daniel Ebeling see Stewart (1976, 1978), on Eberhard August Wilhelm von Zimmermann see Feuerstein-Herz (2004), on Johann Gottfried Herder and George and Reinhold Forster see Beck (1982), Plewe (1986), Peitsch (2006) and Withers (2007); on Alexander von Humboldt see Bowen (1981), Withers (2007), Rupke (2008), Walls (2009), Beck (2012).

[256] On the University of Göttingen see Kühn (1939), Rupke (2002), on the College in Brunswick see Müller (1957), on the universities in Erlangen see Günther (1903), on Kiel see Wenk (1966), on Jena see Stein (1972), and on Tübingen see Schröder (1977). Kühn (1939) further refers to work on the universities in Altdorf, Würzburg, and Vienna. On the number of universities see Hammerstein (1985), Boehm (1989).

[257] Gruber (1900); Hübner (1953); Kremer (1991); Hardach-Pinke (1992).

geographical knowledge. The importance of travelling abroad (from the seventeenth century onwards) led to geography's rising interest. *Ars apodemia*, that "encyclopedic programme" of books suggesting "a model of how to travel and how to observe" was still taught in German universities.[258] In addition, increasing geographical information and material became available – resulting from new expeditions, but also from reports of earlier explorations which were only now being published.[259]

In this overly presentist reading of German geography, Kühn (1939) refers to the beginning of the eighteenth century as 'unproductive'. During the first third of the eighteenth century, Philipp Clüver's (1580-1622) and Christoph Cellarius's (1638-1707) works as well as Bernhardus Varenius's (1622-1650) *Geographia generalis* (1650) were still used as references. Selective research projects – mostly in physical geography – were promoted by prize competitions, sometimes carried out by geographical societies and published in periodicals.[260] Kühn (1939) and Plewe (1986) further point to progress in German cartography – enabled by improved manufacturing techniques and mostly carried out by the *Homännische Officin* in Nuremberg in competition with French map makers. Several books on the state of research, and books on topography and *Länderkunde* were published repeatedly, edited, and used as general textbook.[261] As supplements, numerous contemporary travel accounts were read; these differed, however, widely in quality and depth.[262] The increasing amount of geographical data (from expeditions, research in natural sciences, and in history) provoked a *Zeitgeist* which enhanced the general appreciation of geography – also in 'Germany'. He further suggests that political and economic circles attributed an increasing value to geography.[263] Unfortunately, Kühn does not substantiate his statements.

Some German geographers began to focus on *Staatsgeographie* (state geography) during the later eighteenth century. Plewe (1986) argues that eighteenth-century Germany had a necessity for *Staatswissenschaft*. Due to the increasing demand

[258] Stagl (1995), 81, 274. See also Kühn (1939); Schmidt (1986).
[259] Kühn (1939).
[260] Kühn (1939).
[261] Kühn (1939); Banse (1954).
[262] Kühn (1939); Tautz (2006).
[263] Kühn (1939) does not provide sources for these statements.

for state officials, secret state knowledge which had before been circulated within the nobility now needed to be passed on to the wider educated public. The systematisation of such knowledge triggered the establishment of *Staatswissenschaft* which became a popular and wide-spread science in the German states during the eighteenth century.[264] The distinctiveness regarding *Staatswissenschaft* is further expressed in Feuerstein-Herz's (2004) reference to Zimmermann's (1743-1815) intentions to promote *Staatswissenschaft* in Britain and to attract English students for German education. A related German feature was the creation of the discipline *Statistik* (statistics – a qualitative description of the state) during the second half of the century. The creation of *Statistik* resulted in conflicts over content between statisticians and geographers. It has been suggested that only one clear distinction was made: parts of the world beyond Europe belonged to the realm of geography.[265] It was debated whether geography should abandon state geography (*Staatswissenschaft*) in order to free geography from feudal influence. In contrast to Britain and France, the German states had only begun to move away from feudalism.[266] Opponents of political geography argued for a limitation to 'real' – 'pure' – or 'natural' geography and rejected any political function of geography, which led Schultz (1980) to refer to German geography as having been in a "deep crisis".[267]

***Geography across eighteenth-century 'Germany': university research and instruction***

The University of Göttingen has been singled out as 'hub' of German scholarly geography during the Enlightenment.[268] The University of Göttingen (*Georgia Augusta*) was founded in 1735 and to provide new scholarly directions – under the reign of King Georg II (1683-1760), monarch of both Britain and Hanover and Britain. Feuerstein-Herz (2004) has argued that due to this political situation, the *Georgia Augusta* had an international focus and was influenced by British empiricism, particularly the principles

[264] Plewe (1986), 213.
[265] Plewe (1986), 26-48.
[266] Farinelli (2000).
[267] Schultz (1980), 59.
[268] Kühn (1939); Plewe (1986); Feuerstein-Herz (2004).

of induction and analogy. Linked to the scholarly Enlightenment principles of critical reasoning and an interest in modern state building after the Thirty Years' War, Göttingen promoted new orientations of already existing subjects – including geography.

Kühn (1939) has suggested that geography's status and accentuations in Göttingen changed over time. He delineated three distinct periods – as scholars have stated with less detail for other institutions.[269] In 1735, the principal founder of the University of Göttingen, Gerlach Adolph von Münchhausen, did not consider geography as an independent subject. Nevertheless, Kühn has argued that geography developed a special position in Göttingen – without comparison to any university elsewhere in the eighteenth-century German states. The number of lectures in geography and statistics, the creation of a geography chair in 1754 (for Johann Michael Franz), and the considerable number of scholars promoting geography throughout the century allowed Kühn to stress Göttingen's special position. As in other institutions, geography was taught as a supportive subject for history. The first geographical lectures were offered by the historian Johann David Köhler (1684-1755) who had written the geographical book *Einleitung zu der verbesserten neuen Geographie* (1724), which others see as of little importance. [270]

After Köhler, the geographical practices in Göttingen changed. A new epoch of geography teaching began with Tobias Mayer (1723-1762), Johann Michael Franz (1700-1761), Anton Friedrich Büsching (1724-1793), and Gottfried Achenwall (1719-1772). During the academic career of these men, the University of Göttingen played a key role in advancing geographical sciences in Germany. Kühn points to Münchhausen and his advisers as important promoters of scientific geography in Göttingen in offering chairs to Mayer, Franz and Johann Tobias Lowitz (1757-1804, Franz's brother-in-law). All three worked for the first German geographical society, the *Cosmographische Gesellschaft* in Nuremberg which had been founded as a centre for German geographical research. Plans to later move the society to Göttingen failed. In 1750, Mayer became professor for economics in Göttingen. His geographical contributions included lectures

[269] On Kiel see Wenk (1966); on Tübingen see Schröder (1977).
[270] Köhler had been called from the University of Altdorf with the help of a higher salary (see Kühn (1939)).

in mathematical geography, climatological investigations, and his exact determination of distances on the ocean as well as his mapping for the Cosmological Society.

The most important event of this period occurred in 1754 when Franz was appointed the first professor for geography (first in Göttingen and first in Germany). Kühn (1939) describes Franz's teachings as diverse: he taught mathematical and descriptive geography, also including biblical geography. He connected geography, state and the public weal, and called for the geographer to be a "*Staats-Weltbeschreiber*" (state-world-describer).[271] Throughout his career, Franz aimed at promoting and improving geography and profited from a wide network of correspondence. Kühn suggests that Franz created the foundations for Büsching's later systematic geographical handbooks. Lowitz became professor for mathematics and taught mathematical geography until he left in 1768 for the Russian Academy of Sciences in St. Petersburg where he became professor for geography. Kühn highlights Anton Büsching as the last remarkable figure of that period in Göttingen, Kühn argues that Büsching followed Franz's taxonomy and systematically collected and organised geographical knowledge in his *Neue Erdbeschreibung* (1754-92) which was revised and republished numerous times before and after Büsching's death in 1793. Kühn considers the *Neue Erdbeschreibung* as one of the most cited, praised and criticised pieces of work of (German) eighteenth-century geographical literature. Pointing to Büsching's importance, Plewe (1986) has stressed Büsching's emphasis on observation and critical assessment of sources. Kühn further sees Büsching's influence in the works of many later geographers, including Johann Christoph Gatterer (1727-1799), Georg Christian Raff (1748-88) and Friedrich Gottlieb Canzler (1764-1811) (all later geographers in Göttingen). Büsching's work was translated into almost all the European languages, and the work was widely praised. With the help of his wide correspondence network he published numerous other geographical works and reviewed books in various journals – also after he had left Göttingen in 1762 (first for St. Petersburg and later to become school director in Berlin). This period ended with the death of Mayer and Franz and with

[271] Kühn (1939), 39.

Büsching's and Lowitz's moves to St. Petersburg. Franz's and Büsching's chairs could not be staffed soon "due to a lack of trained geographers at the time".[272]

Between 1750 and 1762, geography's focus and status changed. It had become an important subject in Göttingen and in other German places. It was considered useful to politics and other sciences. Mathematical geography and cartography had further developed and geography began to develop as explicit "*Länder-und Staatenkunde*". Kühn attributes those developments to the work of the Göttingen geographers discussed. He also points to the beneficial conditions for geographer's work in Göttingen: the comprehensive university library, the sovereign's support, the free delivery of mail, and the collective geographical interest of several local scholars.

After 1762, geography experienced a time of struggle over content and in its relations with other disciplines in Göttingen. The new discipline *Statistik* had emerged as a significant competitor for geography, particularly, in Göttingen. Gottfried Archenwall, founder of *Statistik* as university subject came to the University of Göttingen in 1748.[273] The result was a quarrel between geography and statistics over content and knowledge. After this conflict had first appeared in Göttingen in the 1760s and early 1770s, it continued amongst scholars across the German states until the end of the eighteenth century. Statistics was taught at many German universities by then and its popularity decreased the numbers of students attending geographical lectures. According to Kühn, geography was not well enough known as useful discipline; the utility of statistics was, in contrast, definite to many future state officials and businessmen. In addition, the Seven Years' War diminished the opportunities for correspondence. One notable event was Johann David Michaelis's (the orientalist in Göttingen who lectured on biblical geography) co-organisation of the Danish Arabia-expedition (1761-1767) and Carsten Niebuhr's successful completion of the same (student under Tobias Mayer at Göttingen before), which increased the university's international reputation.

During the last third of the eighteenth century, geography underwent something of a revival. Kühn has suggested that the historian's Johann Christoph Gatterer renewed

[272] Kühn (1939), 110.
[273] Archenwall based his argument on Hermann Conring (1606-1681) who had promoted the discipline of *Staatskunde* in Helmstedt in the middle of the seventeenth century (see Kühn (1939)).

geographical readings in 1775 marked the beginning of a new geographical epoch in Göttingen. Kühn considers Gatterer's book *Abriß der Geographie* (1775) of similar importance as Franz's programmatic writings. Gatterer's book offered new directions, especially for physical geography. Gatterer also lectured on statistics. He did not succeed in fully separating geography and statistics. During the last third of the century, the number and diversity of geography lectures was German-wide outstanding in Göttingen. Kühn therefore considers Göttingen as center for both old and new geographical ideas.[274] In addition, the conflict between geography and statistics reached its climax during the last decades. Parts of geography claimed greater prominence; voices were raised against geography's utilitarianism (see chapter 4). Increased attention to mathematical and physical geography was pushed by Göttingen instructors such as Abraham Gotthelf Kästner (1719-1800) (mathematician), Johann Christian Polycarp Erxleben (1744-1777) (natural scientist focusing on natural history) and the physicist Georg Christoph Lichtenberg (1724-1799).

***Geography's differences across the German states***

Having shown that geography's status and accentuations in Göttingen changed over time – mostly based on Kühn (1939) – I have delineated four periods. I now want to argue that the literature suggests variations in understanding geography across the German states. Whilst Kühn pointed to the central position and special history of geography in Göttingen throughout the eighteenth century, others have cautioned against an exclusive focus on Göttingen. Plewe (1986), for example, argues that Göttingen geographers did not only rely on exchange amongst each other but that German scholars formed a wide network across and beyond the German states. Feuerstein-Herz (2004) refers to the University of Halle as a second centre of geographical promotion. She argues that those two universities were the most "reform oriented and outstanding universities of the Enlightenment".[275]

[274] Kühn (1939), 126.
[275] Feuerstein-Herz (2004), 22.

During Johann David Köhler's time in Göttingen early in the century, Friedrich Koes (1684–1766) and Martin Schneitzel (1679-1747) also taught mathematical geography in Kiel and Jena respectively.[276] Kühn admits that cartography, mathematical geography, political geography, *Staatenkunde,* and statistics experienced an upswing throughout Germany beginning in the middle of the eighteenth century. Elsewhere, such developments are mirrored in the teachings and works by Matthias Christian Sprengel (1746-1803) (University Halle), Johann Ernst Fabri (1755-1825) (University Jena and Erlangen), and Christoph Daniel Ebeling (1741-1817) (*Handlungsakademie* Hamburg).[277]

Discussion between adherents of different approaches and angles was facilitated by the increasing number of geographical periodicals and review journals – a fact emphasised by Blanke (1999) and Griep (1999). The *Göttingischen Gelehrten Anzeigen*, Büsching's *Wöchentliche Nachrichten*, Gatterer's *Allgemeine Historische Bibliothek* (1767-1771) and his *Historisches Journal* (1773-1782), Lichtenberg's and Georg Forster's *Göttingische Magazin der Wissenschaften und Literatur* (1780-1785), Schlözer's *Schlözersche Zeitschriften* and Canzler's *Allgemeines Literaturarchiv für Geschichte, Geographie und Statistik, deren Nebenwissenschaften und Hülfsmittel* are examples. It has been suggested that especially during the last third of the eighteenth century, journals were increasingly used over books as the publication medium over books to keep up with the quickly changing political situation.[278] Hohmann (1959) listed more than twenty German geographical journals throughout the century whose content and history is mostly yet to be explored.[279] Such periodicals provide a reflection of geography's developments and its related subjects in eighteenth-century Europe – aspects which are yet to be researched in more detail.

This suggests that German geographical scholars outside of Göttingen contributed to German geographical developments. In fact, it has been argued that Kant – in Königsberg – was the German key figure in physical and anthropological geography

[276] On Kiel see Wenk (1966); on Jena see Stein (1972).
[277] Kühn (1939); Stein (1972); Feuerstein-Herz (2004).
[278] Kühn (1939); Fischer (1999).
[279] Hohmann (1959); see also Griep (1999) and Blanke (1999).

since the middle of the eighteenth century.[280] Besides Kant, Reinhold and George Forster must be mentioned as important German geographers who were not employed in Göttingen.[281] Both enabled transnational geographical knowledge flows by participating in Cook's second voyage. George published the journey's findings, and both Reinhold and George translated a comprehensive number of travel accounts. They later conducted research at different institutions. George Forster spent time at the *Collegium Carolinum* in Brunswick, established in 1745 as an institution of higher education between grammar schools and universities providing professional education, especially for future civil servants. Several such institutions were founded during the eighteenth century. They were meant to provide an introductory education for future civil servants. Reinhold Forster lectured in natural history at the University of Halle.[282]

In sum, what geography was held to be in eighteenth-century Germany underwent changes throughout the century and differed across the German states. Göttingen played a key role in the production and dissemination of geography in German states. Göttingen was not the only place where geography was practised and debated: Kant in Königsberg, Ebeling in Hamburg, Herder in Weimar, Francke in Halle, the Forsters in various places are only a few examples of geography's diverse *foci* and purposes. Geographical instruction was given in eighteenth-century schools and private homes. It has further been indicated that geographical debates occurred across Germany – affirming the argument of spatial variations but also signifying mutual influence through the exchange of ideas. In this regard, the existing literature has pointed to the role of geographical journals for the facilitation of exchange within and across the German territories – especially from the 1760s onwards. Journals were also used as a publication medium – often substituting books – in order to keep up with international political changes during the last third of the century.[283]

The existing studies suggest that purpose and understanding of geography differed across the 'long' eighteenth century and across the German states. This is

[280] Feuerstein-Herz (2004); Elden and Mendieta (2011).
[281] Beck (1982).
[282] Beck (1982), 54-82; Withers (2007).
[283] Kühn (1939); Fischer *et al.* (1999).

congruent with Withers's argument "where geography was used mattered to how people understood it".[284] This suggests that there is room for more work on what geography was and meant in the eighteenth-century German states, such as the role of geography's textual tradition, and its role in secondary education. This thesis addresses these gaps. To conclude, Withers's (2006) suggestions can be adopted to geography in eighteenth-century Germany: there is a need to study "the book geographies of geography's books; geography's place and use in different institutional settings, formal and non-formal; and what I suggest we may call geography's 'discursive affiliations'".[285] With those issues in mind, the following chapter presents in more detail the context of empirical evidence of this thesis. It depicts the political, religious, urban, and intellectual landscapes of the Holy Roman Empire in order to situate the production and circulation of geography in the German states, *c*.1690 – *c*.1815.

[284] Withers (2006), 713.
[285] Withers (2006), 724.

# 3

# Geography in context: Political, religion, urban, and intellectual landscapes in the German states, *c.*1690 – *c.*1815.

## Introduction

Among the many correspondents of the Hamburg-based geographer Christoph Daniel Ebeling was Charles Burney in England. Although their friendship was based on shared interests in music, the two scholars also discussed the state of science in their respective empires. On 20 June 1773, Ebeling wrote to Burney about German identities, arguing for a multiplicity of German peoples based on heritage:

> Then I believe there is a general mistake that you believe our nation is to be considered as one people. No Sir. History and Geography will acquaint You that we are composed of different clans or even little nations quite different from one another in dialects, customs, nothwistanding many of them have been altered by administration, mixture with foreigners, wars, migrations etc. but you always say the Germans in genere. You should say the Bavarians, Upper Saxons, Lower Saxons etc.[1]

On 27 July the same year, Ebeling wrote again to Burney to elaborate further on the different German nations, arguing that origin and manner separated them:

> As to the difference I desired You to make amongst the several peoples of Germany, it is a notorious and real one. The Bohemians are no Germans, neither by origin, nor by manners; otherwise the Hanoverians would be English, because they are under the same prince. The Bohemians are annexed to the German empire by some political arrangements, not by their being Germans. But besides that, there is a great difference between the southern and northern parts of Germany. Whoever is a little acquainted with them will agree with us, that they are a quite different nation, (the language excepted and the political constitution). Their Genius, manners, life and origin is different, and so is their litterature. They have made no considerable progress in Litterature and Sciences in Austria, Bavaria, Swaben, the Circles at the Rhine, and Westphaly; some single men of

[1] Ebeling in a letter to Charles Burney, "Hambourg 20 June 1773" in Stewart (1975), 52-53. Note: this letter and all the following by Ebeling are in Ebeling's own English.

> Genius and erudition excepted. Francony has done something in Learning, nothing in arts and belles letters. Austria begins now to shine forth with great glory, in fine literature as well as sciences, but bigotry resists them.[2]

Ebeling's words speak to the fragmentation of the eighteenth-century German states with regard to their political structures, national customs, and religion. Ebeling's differentiation between a northern and a southern part is, overall, a distinction between a predominantly Protestant 'north' and a Catholic 'south'. Ebeling points to different nations varying by origins and customs, politically organised into different states and 'circles.' A circle ('*Kreis*') was a particular political structure of the Holy Roman Empire that comprised different states, especially to assist internal voting structures and financial matters. Ebeling also draws a picture of different intellectual landscapes within the eighteenth-century German states.

This chapter elaborates on these political, national, religious, and intellectual landscapes in order to show how, in the eighteenth-century German states, geography can be read against them. The chapter argues that the German states' political and religious fragmentation and the consequential 'fractured' scholarly landscape were counteracted by the scholarly aim of an intellectual community and unity – the German '*Gelehrtenrepublik,*' an aim that was reflected in numerous subjects including geography.

The chapter is organised in three main sections. The first section describes the political, religious, and urban landscapes of the eighteenth-century German states. I proceed from the macro to the micro scale and begin by exploring the empire's political structure, before moving to the confessional 'north-south divide,' and then showing how the empire's fragmentation was manifest in the many and widely-dispersed urban centres. Section two focuses on the intellectual landscapes and elaborates on the numerous intellectual institutions, especially universities and academies that were essential for the production, circulation, and discussion of the sciences. I also demonstrate how German scholars, including those working on geography, aimed to

[2] Ebeling in a letter to Charles Burney, "Hambourg July. 27. 1773" in Stewart (1975), 54-58.

construct a German scholarly community – a German '*Gelehrtenrepublik*' – in order to transcend the political, religious, and intellectual fragmentation and the absence of a united German nation. In section three, I describe the sedentary nature of German scholarly geography and elaborate on the German methodologies of geographical print production. I finally show that German geographical scholars reflected the German aim for greater international scientific recognition.

## Political divisions and the lack of a German nation

'Germany' as a state or nation-state – such as France or Great Britain – did not exist in the eighteenth century. It was, rather, a political union of multiple territories encompassed in the Holy Roman Empire of the German nation. This union of over 300 larger and smaller states and free cities – made the map of the empire look like a 'patchwork rug' (see Fig. 3.1).[3]

[3] See Vierhaus (1987); Schmidt (2009). Schmidt (2009), 57, used the term '*Flickenteppich*' (patchwork rug). The empire ('*Reich*') referred to two entities: the '*Reichslehnverband*' which included several territories in northern Italy, Burgundy and the southern Netherlands, and, based on perception, Bohemia and its neighboring lands belonged, and otherwise it referred to the German lands which confined the '*Reichs-Staat*' (see Schmidt (2009), 55).

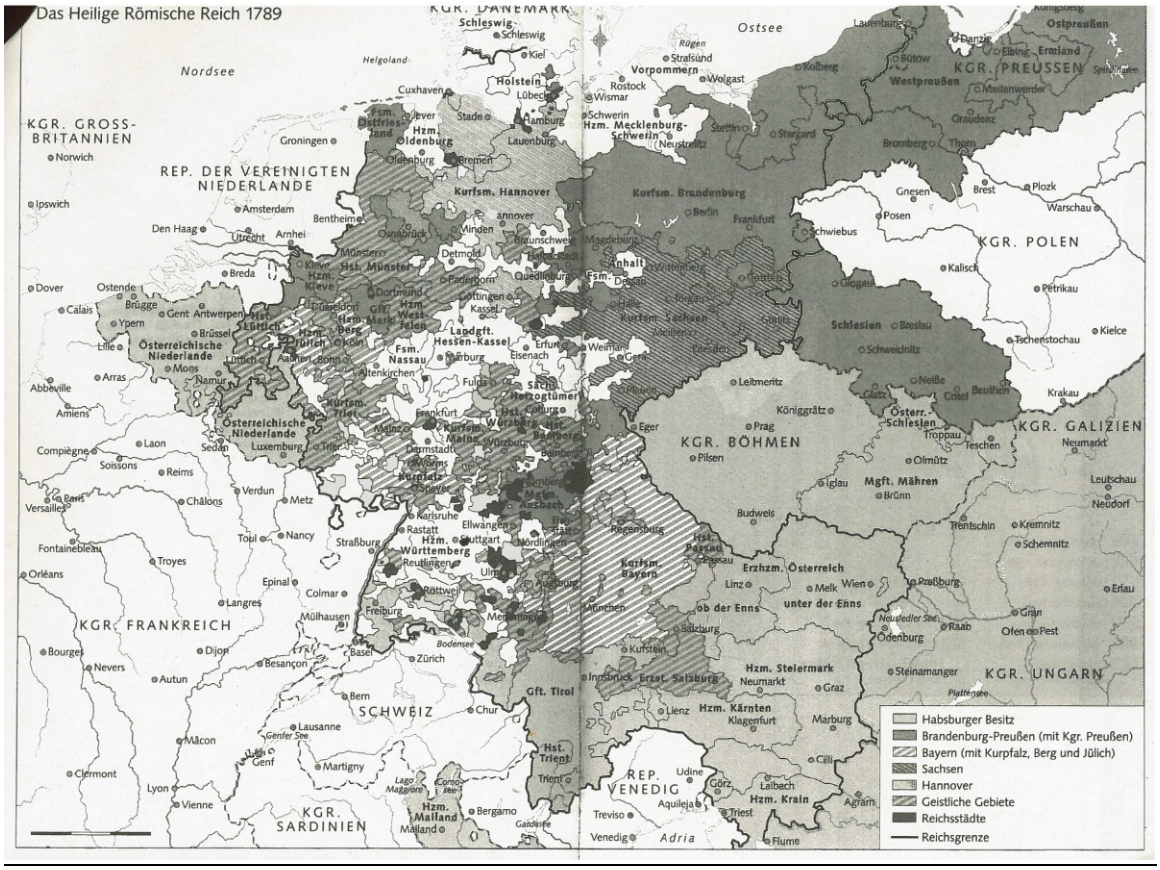



Figure 3.1. 'The Holy Roman Empire in 1789.' ('*Das Heilige Römische Reich 1789*.') (Schmidt (2009), 510).

In addition to this structural complexity, the political landscape of the empire – its empire's internal and external geo-political borders – changed throughout the century as a result of wars and annexations. This included the Silesian Wars (1740–1742, 1744–1745, and 1756–1763) – a conflict between Prussia and the Habsburg Monarchy about the province of Silesia and the County of Kladsko. The War of the Austrian Succession (1740–1748) began with the invasion of Silesia by King Frederick II (Frederick the Great) in 1740 during which he also invaded and claimed the province of Bohemia. It ended in 1748 with the Treaty of Aix-la-Chapelle which assigned Prussia possession of most of Silesia. The Seven Years' War (1754-1763) initiated by Prussia under Frederick the Great, saw conflict with an invasion of Saxony and Bohemia in 1756-1757. The longest and most influential wars were, however, the Coalition Wars which started at the

turn of the century (1792-1815). Also known as the French Revolutionary Wars (1792-1802) and Napoleonic Wars (1803-1815), these wars brought about the dissolution of the Holy Roman Empire in 1806, and ended with the Congress of Vienna in 1815.

The Holy Roman Empire, which some contemporaries referred to as a "monster," is often described as a loose confederation of rather separate states for which the term 'Germany' only makes sense when speaking of the area or territory the empire and its different states covered.[4] The common illustration of the empire as fragmented ('*zersplittert*') has recently been challenged. A reinterpretation of the empire's political and territorial fragmentation has been offered; it suggests understanding the empire's structure as "state unity in diversity."[5] Georg Schmidt has recommended using terms such as "open" or "multi-level statehood" in order to refer to a community that, in its diversity, formed a state or a territorial union.[6] While acknowledging this alternative interpretation, this chapter argues that the evident political fragmentation was also to be transcended intellectually – by a German 'Republic of Letters.'

The constitutional framework of the empire had been codified in the treaties of the Peace of Westphalia in 1648 based on its late sixteenth-century structures.[7] Political functions and responsibilities in the empire were spread across several political-structural levels: the emperor ('*Kaiser*') and the empire ('*Reich*'), the Imperial Diet ('*Reichstag*') and Supreme Court ('*Reichskammergericht*'), as well as the states in their different sizes and the free imperial cities.[8] A further structural level, the Imperial Circles ('*Reichskreise*') had been constructed – already early in the fifteenth century – in order to coordinate the states' voting for the judges of the Supreme Court, to implement the Diet's decisions, and to coordinate financial and economic matters. These several entities made up a complex imperial constitution (see Fig. 3.2).

[4] Samuel Pufendorf in Hellmuth (1990), 1; Bruford (1971), 1. The free towns were remains of the Middle Ages, and were mostly located in the southern and south-western parts of the empire (see Bruford (1971)).
[5] Schmidt (2009), 58.
[6] Schmidt (2009), 60.
[7] Kremer (1989); Schmidt (2009).
[8] The Imperial Supreme Court, also Supreme Court of the Empire, was established in 1495.

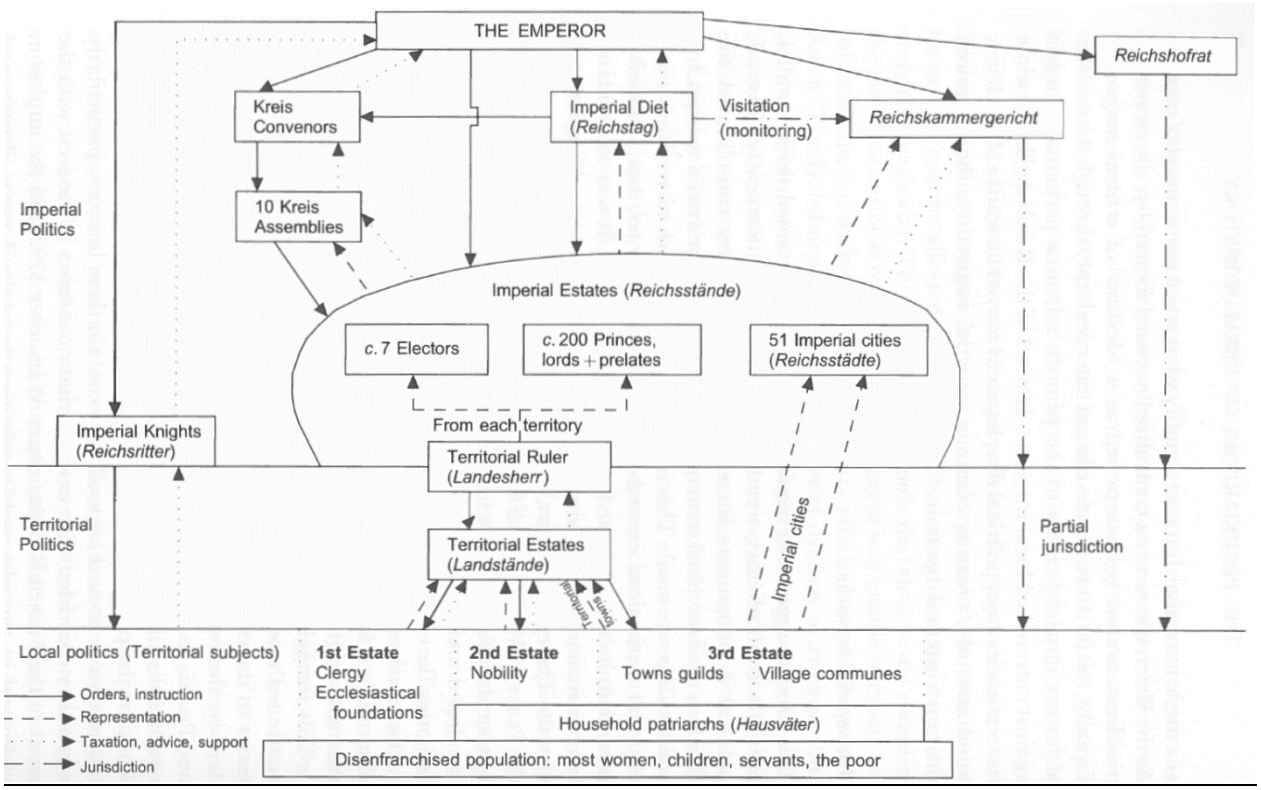



Figure 3.2. 'The imperial constitution.' (Wilson (2004), 10).

The individual states differed in size and political and military power. States such as Prussia and Austria included notable territories and played a role in European politics, whilst the free imperial cities, city states such as Hamburg, Lübeck, Mainz or Augsburg, were politically less significant, in the empire and in Europe. Many middle-sized states, such as the Landgraviate Hesse-Kassel or the duchy of Saxe-Weimar, existed. Bruford has summarised the different German political rulers as "kings of European importance like those of Austria and Prussia, the electoral princes, 94 spiritual and lay princes, 103 counts, 40 prelates, 51 Free Towns, in all some 300 'Territories'."[9] In terms of military power, the states were separated in two classes: armed and unarmed states. This military difference has been referred to as a "polarisation" of state powers which increased

[9] Bruford (1971), 7.

during the eighteenth century, and, eventually, reached its climax in the relation between Prussia and Austria after 1740.[10]

The different states' sovereigns were jealous of each other's privileges and unwilling to give up their territorial authority. This '*Kleinstaaterei*' – German particularism – speaks to the regionalism and prioritisation of state- or city-matters, and a disinterest in the empire and its matters. Concerns of the empire, such as military defence, were regarded as subordinate. The empire's military force has been described as diverse in uniform and equipment, of lamentable skills and discipline, and insufficiently funded.[11] It was assembled via the empire's Diet, the general assembly of the empire's states. The Diet consisted of three Chambers – the Chamber of Electoral Princes (nine for most of the eighteenth century, and dominating), the Chamber of Princes, and Chamber of Free Towns (in terms of voting power almost negligible). Due to the hundreds of rulers involved in voting processes, the Diet was almost unable to pass laws.[12] Several factors strengthened these feelings of separation instead of fostering unity.[13] This included the lack of a common taxation system, rulers' different confessional preferences after the Reformation and Counter-Reformation, and, thus, different state-religions, and the reinforcement of absolute governance in several larger states.[14]

'Germany' as a single state or country did not exist during the eighteenth century; neither was identification with the 'German nation' common. The German nation was only formed during the eighteenth century, and this 'nation' was as fragmented, incoherent, and diverse as the geo-political location of its political and territorial boundaries.[15] Notions, such as '*Nation*,' '*Volk*,' and '*Vaterland'* were commonly used, but held different meanings in different contexts and for different people. They were "dynamic categories."[16] '*Vaterland*' could refer to an individual state

[10] Schmidt (2009), 67.
[11] Bruford (1971), 8.
[12] Bruford (1971), 9.
[13] Bruford (1971), 3.
[14] Bruford (1971), 5.
[15] Vierhaus (1987); Dann (1993); Blitz (2000); Schmidt (2009).
[16] Schmidt (2009), 78.

or the entire empire.[17] Identities signified in the concepts 'nation' or 'people' were constructs that could refer to ancestry or communities that shared a common language, culture, and customs. "Foreign" and "home" were relative categories, and varied by point of reference.[18] The consequence of this was that many Germans held multiple identities. As one author has is, "It is well known that the word 'national' was almost meaningless for the average German citizen of those days."[19] Christoph Martin Wieland wrote in 1773, "The German nation is actually not one nation but an aggregate of many nations."[20]

The terms 'German' ('*deutsch*') and 'Germany' ('*Deutschland*' or '*Teutschland*') were nevertheless in use. The facets of being 'German' and the construction of a 'German nation' during the eighteenth century were ethical-cultural constructions that, theoretically, included especially those inhabitants of the empire who lived north of the Alps and shared the German language and/or culture.[21] German identity was used to transcend confessional and territorial separations (especially the Austria-Prussian dualism) or to defend the empire against foreign realms. Further, being German implied not only belonging to a group, but also fulfilment of duties to society and local communities in exchange for protection and solidarity in periods of distress and hardship. Historians have, thus, pointed out that the notion 'German' was not clearly defined, and referred to different concepts: a community of language (the '*deutsche Sprachgemeinschaft*'), a German society connected by culture ('*reichsdeutsche Kulturgesellschaft*' or '*Kulturnation*'), and the population of the empire (the '*Staatsbevölkerung*').[22] These notions were inclusions either by language, culture or political entity – the empire. Dann argues that the term '*Sprachgemeinschaft*' transcended political boundaries, and was, in fact, independent from state boundaries in including those Germans who lived outside the political boundaries of the empire – in

[17] Schmidt (2009), 73. See also Schmidt (2009), 73-75. The terns '*Nation*' and '*Volk*' often held the same meaning and were used synonymously.
[18] Schmidt (2009), 75.
[19] Bruford (1971), 297.
[20] Christoph Martin Wieland (1773) in Dann (1993), 51.
[21] Schmidt (2009), 74.
[22] Dann (1993), 30 and 48.

Switzerland, Alsace, Pennsylvania, or later in West and East Prussia. '*Reichsdeutsche Kulturgesellschaft*' or '*Kulturnation*,' in contrast, was related to the empire, and formed the basis of the modern German nation.[23]

Dann has argued against understanding the emergence of the German nation as having primarily been defined by cultural factors during the eighteenth century; he argued that the construction of the German nation was rather based on territory (as in the case of France), and not on culture. The term '*Kulturnation*' which was created at the end of the nineteenth century when a nation-state already existed, is a retrospective description. For Dann, culture only became a crucial factor at the end of the eighteenth century, when literary figures aimed to prevent the disintegration of the '*Reich*' by reference to a common culture.[24] Dann argues, instead, that the political boundaries of the empire were decisive for the construction of the '*Reichsnation*'. He has instead spoken of a "process of collective political rising of consciousness."[25] The creation of a German identity – with its different points of reference – was related to the structural situation of the empire – especially the federal pluralism of the different states.[26] The German nation can be summarised as "narrowly confined geographically and politically disunited."[27] The formation of the German League of Princes (the '*Deutsche Fürstenbund*') – a collaboration between Prussia, Brandenburg, and Saxony initiated by Frederick the Great in 1785 – is often referred to as the beginning of German federalism.[28]

The form of government in the German states was, in most cases, enlightened or benevolent absolutism. Political authority was held by the rulers of the more than 300 sovereign states. Many sovereigns were willing and eager to implement reforms for the benefit of their population, a willingness designed to ensure the persistence of the monarchical structures, and a means to prevent social and political upheaval or even

[23] Dann (1993), 48.
[24] Dann (1993), 48.
[25] Dann (1993), 14.
[26] Dann (1993), 35.
[27] Bruford (1971), 300.
[28] Umbach (2002b), especially pp. 44-51. Umbach (2002a), 3, points out that the "political category" of federalism emerged amongst several German scholars from the 1770s onwards.

revolution by accommodating some of the demands of the growing educated middle class – the '*Bildungsschichten*.'[29] The German princes and rulers seemed even to engage in a competition for benevolence and enlightened reforms – aiming to excel amongst each other. The republican free towns, such as Hamburg or Mainz, were republics by name but, in reality, were more aristocratic than democratic in their governance.[30] Regarding the political power of religion, the role of the church had been decreasing since the Reformation. The church had come under governance of the political rulers in the Protestant lands. The Catholic states controlled the church but not to the same extent as the Protestant ones.[31]

### *German states and 'circles'*

The states' independence and the frequent territorial changes led to a demand for more structural and coordinative stability. In order to coordinate matters of the empire, the so-called 'Imperial Circles' ('*Reichskreise*') had been created early in the sixteenth century. The '*Reichskreise*' – here referred to as 'circles' ('*Kreise*') – played a role in the implementation of decisions of the imperial Diet and for the coordination of economic and fiscal matters such as exchange rates and customs.[32] These 'circles' were a geo-political and geo-religious grouping of the empire's states into ten constructed regions (see Figure 3.3 and Table 3.1). Originally, these ten regions or circles were intended to ease the appointment of the judges for the empire's Supreme Court, the '*Reichskammergericht*.' The circle's responsibilities were later extended to political, military, fiscal, and economic tasks, and used to improve cooperation amongst the empire's states.[33] The circles further served as executive entities for the implementation of the Imperial Diet's (the '*Reichstag*'s) decisions.[34] These political structures further

[29] Dann (1993).
[30] Bruford (1971); Schmidt (2009).
[31] Bruford (1971), 11.
[32] Wilson (2004).
[33] Fiscal and economic cooperation amongst the states was particularly necessary, since the empire lacked a national currency or a national customs system until 1904. The circles so eased the coordination of trade embargos and exchange rates (see Wilson (2004)).
[34] Wilson (2004), 183-198.

illustrate that the Holy Roman Empire was a decentralised territorial and political union – unlike more centralised countries such as France or Spain.[35]

[35] See Umbach (2000), 31, 56; Paquette (2008), especially pp. 56-92.

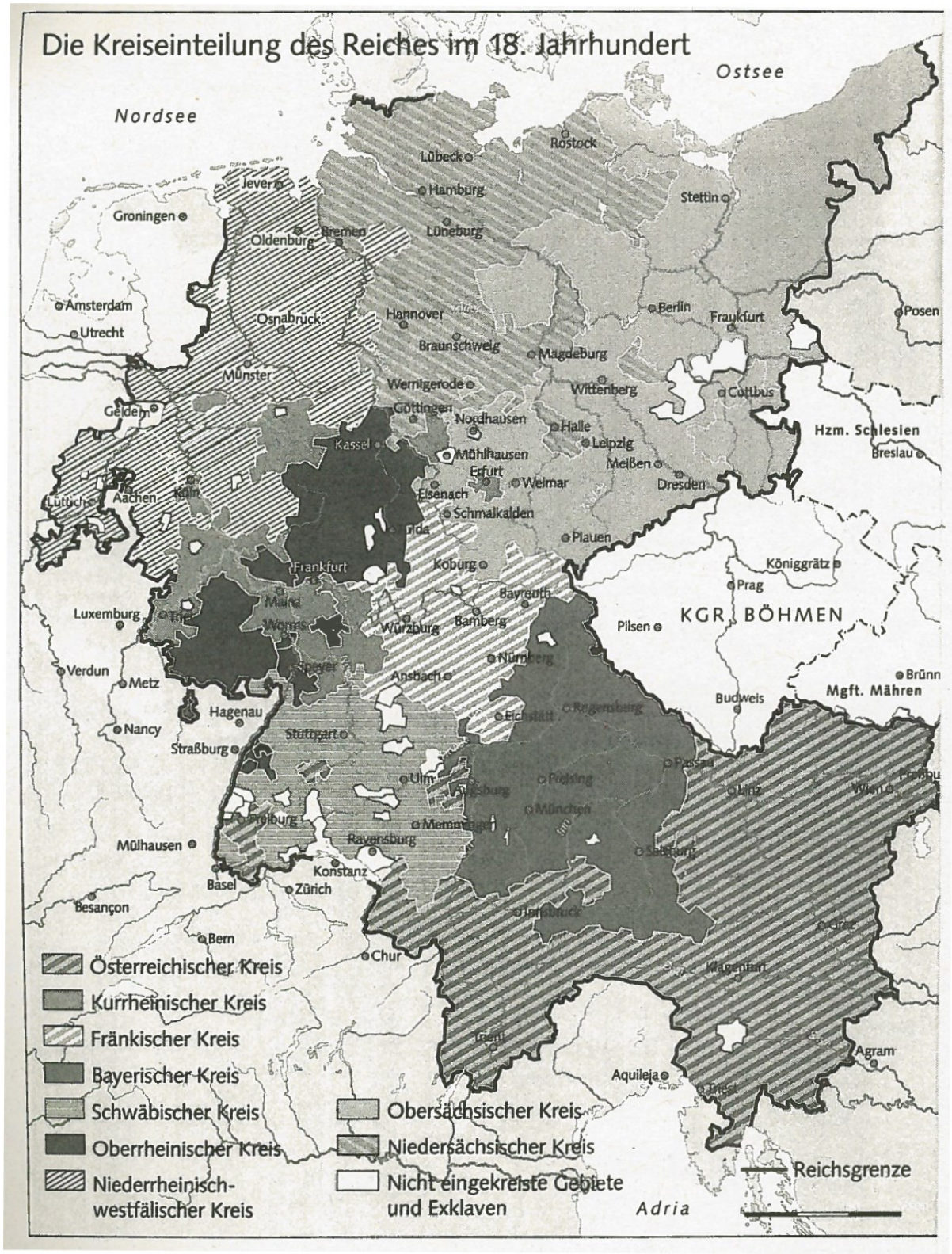



Figure 3.3. 'The Imperial Circles in the eighteenth century.' ('*Die Kreiseinteilung des Reichs im 18. Jahrhundert.*') (Schmidt (2009), 510).

According to the treaties of the Peace of Westphalia in 1648, three confessions were recognised in the Holy Roman Empire: Catholic, Lutheran, and Reformed (Calvinist), with the latter two referred to as Protestant confessions. In addition, several minorities lived in the German states, including Jews, Mennonites, and Huguenots.[36] In the eighteenth century, about 58% of the empire's population were Catholic, 41% were Protestant (Lutherans and Calvinists), and 1% were Jewish. The confessions were not evenly distributed across the empire. The "north" was dominantly Protestant, the "southeast" Catholic, and the other parts were "mixed" concerning the population's confession.[37]

In regard to religious politics, the ten 'circles' were split between Protestant and Catholic ones, as table 3.1 shows. This confessional divide of the 'circles,' as agglomerations of states, was based on representations of the different states' confessions – the preferences of the states' rulers or the regional dominance of the respective Church. The German states' division by religion was a result of the Reformation and the Counter-Reformation which had led to the Thirty Years War (1616-1648). These "confessional tensions" separated the empire religiously but fostered regional collaboration within the 'circles'.[38]

| | **Circle/"*Kreis*"** | **Convenor** | **Confession** |
|---|---|---|---|
| 1 | Austrian | Archduke of Austria | Catholic |

[36] Hartmann (2001); Schmidt (2009).
[37] Hartmann (2001), 53.
[38] Wilson (2004), 190. Schmidt (2009) stresses that, according to the treaties of the Peace of Westphalia, the confession of a state was based on the situation from 1 January 1624. According to the treaties, a converted state sovereign could not force his subjects to change religion, and citizens of other religions ought to be tolerated and not discriminated. *De facto*, these rules were repealed by special regulations that embraced the principle "*cuius regio, eius religio*" (whose realm, whose religion). These regulations allowed a sovereign to ask citizens of other another religion to leave the state within three years (Schmidt (2009)). In this thesis, I will therefore not distinguish between the Lutherans and the Calvinist Church; and instead refer to the overriding category "Protestantism", as it is contention in the literature which distinguishes between predominantly Protestant and Catholic states and their respective religious politics (see Blanning (1981); Whaley (1981); Hartmann (2001); Schmidt (2009)).

| | | | |
|---|---|---|---|
| 2 | Burgundian | Duke of Burgundy (*i.e.*, Spain, then Austria) | Catholic |
| 3 | Bavarian | Elector of Bavaria<br>Archbishop of Salzburg | Catholic<br>Catholic |
| 4 | Electoral Rhenish | Elector of Mainz | Catholic |
| 5 | Franconian | Bishop of Bamberg<br>Margraves of Ansbach and Bayreuth (alternating) | Catholic<br>Protestant |
| 6 | Lower Saxon | Duke of Brunswick<br>Bishops of Magdeburg and Bremen (held by Prussia and Hanover by 1715), (alternating) | Protestant<br>Originally Catholic, *de facto* Protestant by 1648 |
| 7 | Upper Saxon | Elector of Saxony | Protestant |
| 8 | Westphalian<br>(Lower Rhenish) | Bishop of Münster<br>Duke of Jülich (claimed by Brandenburg and Pfalz-Neuburg in 1609 with both exercising a function from 1666) | Catholic<br>Catholic/Protestant |
| 9 | Upper Rhenish | Bishop of Worms<br>Prince of Pfalz-Simmern (Palatinate) | Catholic<br>Protestant till 1685, then Catholic |
| 10 | Swabian | Bishop of Constance<br>Duke of Württemberg | Catholic<br>Protestant |

Table 3.1. 'Imperial circles by convenors and confession.' Based on Wilson (2004), 184.

The empire's fragmented political and religious structures were also reflected in its urban landscape. Although population figures concerning the eighteenth-century German states are only estimates and vary by source according to the inclusion or exclusion of certain territories, we know with sufficient certainty that the population in

the German states increased during the eighteenth century.[39] At the beginning of the century, about fifteen million people lived in the German lands, a figure two million less than at the beginning of the Thirty Years War (1618-1648) which had caused millions of deaths throughout the battles over confessional hegemony in and between several European countries and the German states. By 1740, the German states are considered to have reached a population of seventeen million – the population size from 1618.[40] By the turn of the century, population numbers had increased even further – due to improved sanitation and medical conditions which increased the life-expectancy and reduced infant mortality in particular. By 1800, about 23-25 million people lived in the German lands.[41]

The urban population increased between 1700 and 1800 from about 894,000 to about 1,760,000 (see table 3.2). The number of cities with 10,000 inhabitants or more rose from 34 to 61 in the same period (see table 3.3).

| **Country or region** | **1600** | **1650** | **1700** | **1750** | **1800** |
|---|---|---|---|---|---|
| Scandinavia | 2 | 2 | 2 | 3 | 6 |
| England and Wales | 6 | 8 | 11 | 21 | 44 |
| Scotland | 1 | 1 | 2 | 5 | 8 |
| Ireland | 0 | 1 | 3 | 3 | 8 |
| The Netherlands | 19 | 19 | 20 | 18 | 19 |
| Belgium | 12 | 14 | 15 | 15 | 20 |
| Holy Roman Empire of the German Nation (including 'Germany,' Austrian states and Bohemia) | 33 | 26 | 34 | 41 | 61 |
| France | 43 | 44 | 55 | 55 | 78 |
| Switzerland | 2 | 2 | 3 | 4 | 4 |
| Northern Italy | 30 | 19 | 22 | 29 | 33 |
| Central Italy | 9 | 11 | 10 | 11 | 11 |

[39] Schmidt (2009). Hartmann (2001) has pointed to the difficulty of retrieving exact population numbers for the eighteenth century due to the lack of accurate statistical data and the political fragmentation of the empire (see Hartmann (2001), 51).
[40] Schmidt (2009), 23-24.
[41] Rödel (2001-2013).

| | | | | | |
|---|---|---|---|---|---|
| Southern Italy | 20 | 20 | 19 | 25 | 30 |
| Spain | 37 | 24 | 22 | 24 | 24 |
| Portugal | 5 | 5 | 5 | 5 | 5 |
| Poland | 1 | 1 | 1 | 2 | 3 |

Table 3.2. 'Numbers of urban centres with at least 10,000 inhabitants in the Holy Roman Empire in comparison to other European countries and empires between 1500 and 1800.' Source: Schilling (2004), 5.

| **Country or region** | **1600** | **1650** | **1700** | **1750** | **1800** |
|---|---|---|---|---|---|
| Scandinavia | 26 | 63 | 115 | 167 | 228 |
| England and Wales | 255 | 495 | 718 | 1021 | 1870 |
| Scotland | 30 | 35 | 53 | 119 | 276 |
| Ireland | 0 | 17 | 96 | 161 | 369 |
| The Netherlands | 364 | 603 | 639 | 580 | 604 |
| Belgium | 301 | 415 | 486 | 432 | 548 |
| Holy Roman Empire of the German Nation (including 'Germany', Austrian states and Bohemia) | 752 | 628 | 894 | 1350 | 1760 |
| France | 1114 | 1438 | 1747 | 1970 | 2382 |
| Switzerland | 25 | 22 | 39 | 60 | 63 |
| Northern Italy | 897 | 614 | 778 | 924 | 1032 |
| Central Italy | 362 | 384 | 399 | 448 | 489 |
| Southern Italy | 714 | 579 | 584 | 787 | 1074 |
| Spain | 923 | 672 | 673 | 767 | 1165 |
| Portugal | 155 | 199 | 230 | 209 | 252 |
| Poland | 15 | 20 | 15 | 36 | 103 |

Table 3.3. 'Urban population in the Holy Roman Empire in comparison to other European countries and empires between 1500 and 1800.' Numbers are in one thousand. Source: Schilling (2004), 5.

The German states were not densely populated.[42] The large majority of the population was economically dependent on the soil, and, until the mid-century, German lands were largely agricultural lands. Even in Prussia, in 1849, only 28% of population lived in towns: in Saxony 34%, Württemberg 20%, in Baden, Hesse-Darmstadt und

[42] Schilling (2004), 160.

Hanover 15%, and in Bavaria just under 15%. The word 'town' had often a legal meaning; many towns were small in population. Trade tended to be local, and transport of people, goods, and correspondence was costly.[43]

The leading towns, in terms of political importance, were usually the capitals of the small or medium-sized states, the capitals of Prussia and Austria – Berlin and Vienna – included. Those capitals were the residence of the princes or the locations of a state's courts or administrative bodies. Just as wars and state fusions changed the political landscape, the location of capitals changed as well. Following state mergers or political inheritance, capitals relocated, and political bodies and craftsmen and servants would migrate with them. Economically, trade and industry were not significantly developed so that small-scale manufacturing or "dilettante mercantilism" was often a town's main source of industrial income.[44] Some towns on state-borders were bound up in longer-distance trade: Hamburg's access to the North Sea connected the German states with Great Britain, Holland, and France.[45] Other towns, such as Berlin, Leipzig, and Frankfurt-am-Main, were trade centres within the empire. Berlin connected Hamburg and Breslau; Leipzig, connection point between west-east and north-south trading routes, became increasingly favourable for book printers. Franfurt-am-Main which connected two trading routes (Frankfurt-am-Main to Halle via Eisenach, Erfurt, Leipzig, and Cologne-Leipzig-Breslau), lost its supremacy in book print to Leipzig but remained an important financial centre.[46]

In terms of the literary and textual production of knowledge, with which this thesis is concerned, two indicators of relevance may be used to demonstrate geographical differences across the German states: numbers of inhabitants and numbers of books printed. The diversity of the German states is further shown in the distribution of middle-size and larger cities across the empire. A comparative illustration between the years 1500 and 1800 shows a relative population concentration in the northern and south western parts of the empire (see Fig. 3.4 and 3.5).

[43] Bruford (1971).
[44] Bruford (1971), 166.
[45] Heller (1884); Burford (1971).
[46] Bruford (1971).


Figure 3.4. 'Map of urban centers across the German states, with indication of the number of inhabitants, *c*. 1500.' Cites shown had between 10,000 and 40,000 inhabitants. Source: Schilling (2004), 36.


Figure 3.5. 'Map of urban centers across the German states, with indication of the number of inhabitants, *c*. 1800.' Cites shown had between 20,000 and 250,000 inhabitants. Souce: Schilling (2004), 37.

The significance of cities in terms of book printing is reflected comparatively in two maps from the early seventeenth and the first half of the eighteenth century (see Fig. 3.6 and 3.7). The geographies of book printing in 1610-1619 and 1730-1739 show a concentration in numerous German cities, mostly small urban centres, across the

empire.[47] By the early eighteenth century, the concentration of book production moved from the south-west to the central parts of the empire – with Hamburg, Berlin, Breslau, Nuremberg, and Mainz as larger centres.

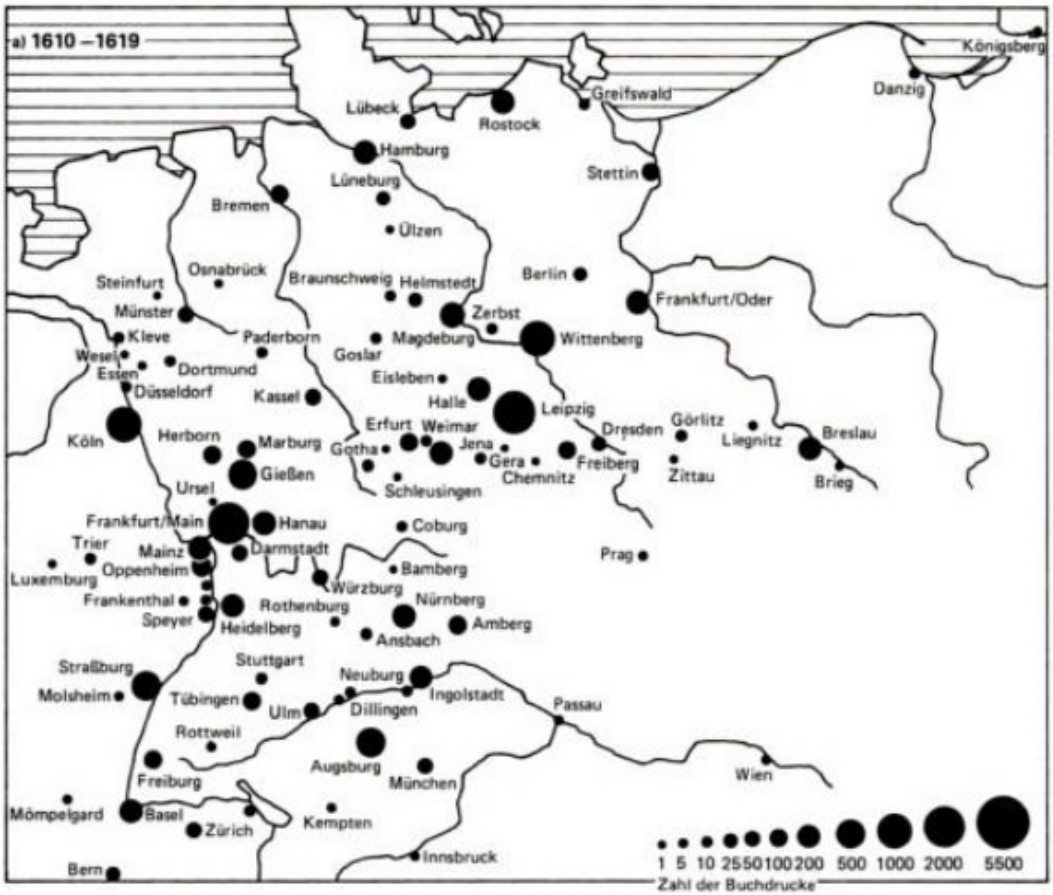



Figure 3.6. 'Numbers of books printed in the Holy Roman Empire and some neighbouring countries between *c*.1610 and *c*.1619.' Numbers are between 1 and 5,500. Source: Schilling (2004), 33.

[47] On knowledge production in the German provinces, see also Hellmuth (1990).

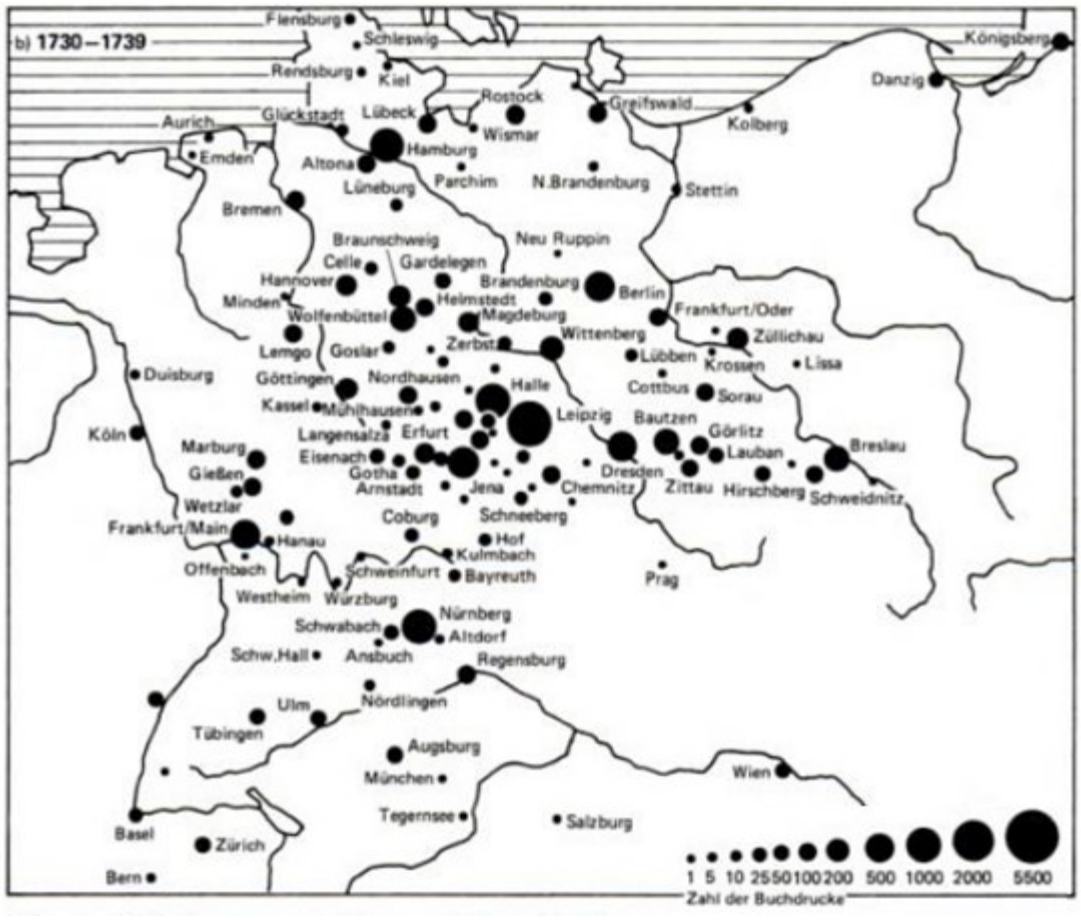



Figure 3.7. 'Numbers of books printed in the Holy Roman Empire and some neighbouring countries between *c*.1730 and *c*.1739.' Numbers are between 1 and 5,500. Source: Based on Schilling (2004), 33.

The illustrations further show that some centres of population were also centres of book printing, most notably Hamburg, Frankfurt, and Leipzig. Not all cities that played a large role in print history were large centres of population: Leipzig, Halle, Jena, Nuremberg had significance in book printing but were not large towns. By contrast, some larger centres of population – Prague, Munich, Köln (Cologne), Vienna – were not centres of book printing. The political and religious fragmentation and the diverse urban landscape of the German states were reflected in the diversity of centres of commerce and knowledge production. The shift in comparative significance from central-western to central-eastern German towns reflects the growth in population and the rise of several smaller German towns, particularly in the Protestant states.

## ‘Intellectual landscapes’: institutional dispersion and scholarly unity

This section outlines the intellectual landscape of the eighteenth-century German states. It begins by describing the meaning of the notion of a scholar – a ‘*Gelehrter*’ – and describes how intellectuals began to differentiate themselves from other authors and the growing learned public, by stressing criteria for scientific writing and by giving a higher value to scientific writings over other text genres. I then explain how members of the intellectual community were affiliated with academies and, importantly, places of higher (tertiary) education, especially universities and colleges, as well as with higher secondary schools. After describing the scholarly institutional landscape and highlighting the particular role of the German universities, I argue that the intellectual community aimed to transcend institutional, political, religious, and spatial or urban divisions by seeking unity in an imagined community of scholars, in a German ‘republic of letters.’

### *The German scholar*

The notion of a scholar already had a long tradition in the eighteenth century. Heinrich Bosse identifies three main criteria to be fulfilled in order to be considered a ‘*Gelehrter*’ in the eighteenth-century German states: first, knowledge of Latin; having studied (usually at the universities), and being a published author. In sum, a ‘*Gelehrter*’ was “either an academic or an author or both.”[48] Studies at a higher institution, usually a university, were necessary as it indicated expertise – the possession of scholarly knowledge (‘*gelehrte Kenntnisse*’). The knowledge of Latin as scholarly *lingua franca* was important in terms of the ability to communicate and publish in it. With the decline of Latin as a scholarly language and with the increased usage of vernacular languages, knowing Latin became a less important criterion for membership in the ‘republic of letters.’[49] Authorship was a qualifying factor since that meant participation in the circulation of knowledge which, besides cognition, was the eventual purpose of a

[48] Bosse (2008), 16.
[49] Bosse (2008), 15.

scholar. Circulation of knowledge often included both, teaching at an institution of higher education (usually universities and the preceding schools) and educating the wider public through print – usually books and periodicals.[50] The predominant importance of publishing resulted in a situation where any author could call himself a scholar and member of the 'republic of letters,' no matter whether he was "inventor of a science or occasional rhymer."[51]

With the growth of the book market, the increase in literacy and learning, the number of authors increased and a "new language of publicity" was created.[52] Denise Phillips has recently argued that in the eighteenth-century German states, 'the republic of letters' was also referred to as 'the learned public' or 'the learned world.'[53] For Phillips, these three terms were distinguished from the general and wider writing and reading public. Phillips points to scholarly strategies for the quest for 'true' knowledge – a quest that was increasingly seen as lost with the endeavour to reflect the "shallow pleasures of curiosity" of public entertainment, politeness, and sociability.[54] Strategies to separate the scientific community from the general learned public, to distinguish between publicity and learnedness – between the learned estate and the 'republic of letters' – were debated and developed. Members of the 'learned public' mainly distinguished themselves from the reading and writing public by expertise, by being competent, and by being knowledgeable judges in their field. Such distinctions aimed to demarcate the 'learned public' from Habermas's more general public sphere – to differentiate the general mass of readers from higher degrees of education and learnedness.[55] This could result in even more specialised informed and learned publics – 'botanical public,' or 'mathematical public.'[56] Based on early modern traditions of the

[50] Bosse (2008), 16.
[51] Johann Melchior Gottlieb Beseke (1782) in Bosse (2008), 16.
[52] Phillips (2012), 41; see also Bosse (2008), 15-17.
[53] Phillips (2012), 41.
[54] Phillips 2012), 39.
[55] Habermas (1989).
[56] Phillips (2012), 43.

'republic of letters,' this intellectual world characterised itself by "different structures, access points, and internal expectations."[57]

In the eighteenth-century German states, scholars were most often affiliated with institutions of higher learning or research – academies, universities, colleges, and higher secondary (grammar) schools. Eight academies, forty-five universities, thirteen colleges, and numerous higher schools were the institutional 'home' for most German scholars. The different institutions offered working space, facilities and materials, such as libraries, and natural cabinets, botanic gardens, or numismatic collections. They helped establish a scholar's prestige – if the author had not established his own name through his work. Prestige and affiliation through patronage could play a role when seeking access to information beyond what the institution could offer. Access to politically sensitive information could be enabled or eased by help of institutional efforts. Most importantly, the institutional organisation of the sciences resulted in the clustering of intellectuals working on similar and related topics, a fact which aided mutual scholarly consultation and advice.

As it was not uncommon to be affiliated with different kinds of institutions, especially with academies and institutions of higher learning, it was not unusual to switch between institutions: scholars would receive offers of professorship at other universities, colleges, or schools. Scholars moved institutionally by 'ascending the ladder' – the hierarchy – of sciences.[58] Switching institutions was, therefore, often related to promotion (of one's self and of a given subject), better working conditions, or improved payment. A typical scholar would write textbooks and compendia – ideally in different disciplines or realms of knowledge throughout his life.[59] Payment differed by institution and discipline. An institution's payment was a necessary source of income, since a scholar's earnings from publishing were often limited. Since payment depended on discipline, institution, and state, income from higher teaching intuitions could be limited. Scholars therefore often held additional occupations, sometimes successively, and sometimes – if financially necessary – simultaneously. Besides private teachings,

[57] Phillips (2012), 43.
[58] Stichweh (1984), 33.
[59] Stichweh (1984), 11.

this often included work as civil servants and as pastors in the Protestant lands or priests in Catholic territories.[60]

***Institutions of higher education and research: academies, universities, and colleges***

In order to give a fuller picture of the institutions of science making and higher learning, against which geography was written, published and read, I shall describe the institutional landscape – particularly academies and universities – in more detail, beginning with their spatial distribution before elaborating on their key characteristics and relations. Many cities and larger towns had universities, colleges, or academies. Berlin, Munich, and Mannheim were rather exceptional in that they hosted academies but no universities until the nineteenth and twentieth century. The emperors and princes of each state were keen to have institutions of higher education and research in their own states: to raise the prestige of the emperor as enlightened leader, to bring benefits to the state, especially in the form of education and the training of future state officials, and to improve agriculture, manufacturing, and the states' financial and mercantile condition.[61] Not every state had its own university or academy, but numbers grew: six academies and six universities were founded between 1700 and 1815, adding up to almost fifty universities in total (see table 3.5).

The six academies founded during the eighteenth century were given the German term '*Akademie*'. This term, meaning learned society, followed the French example and was introduced in the beginning of the eighteenth century. One eighteenth-century exception was the academy founded in Berlin in 1700 which was called a '*Sozietät*.' Since the term '*Akademie*' was also used for teaching institutions such as '*Ritterakademien*' (knight academies – aristocratic German educational institutions), and Huguenot academies, Gottfried Wilhelm Leibniz intended to call the Berlin academy the '*Sozietät der Wissenschaften*,' following not the Parisian '*Academie des Sciences*' but the example of London's 'Royal Society'.[62]

[60] Stichweh (1984), 75; Turner (1975), 506.
[61] Turner (1975), 498; Möller (1986), 235.
[62] Voss (1980), 45.

Two learned academies or societies had been founded during the seventeenth century – the '*Societas Ereunetica*' in Rostock (1623) and the 'Academia Caesaro Leopoldina' named Leopoldina (1652) whose residence, until 1878, was the respective president's residence. The first academy or society comparable to those in Paris and London was the first eighteenth-century academy, the '*Berliner Societät der Wissenschaften*' which was established in 1700. Similar plans for academies in Vienna and Dresden were not implemented due to a lack of political will.[63] From 1750 onwards, five other academies were founded in the German states: Göttingen (1751-52), Erfurt (1754), Munich (1759), Mannheim (1763), Leipzig (1774), Kassel (1777), and Prague (1785). The *Berliner Sozietät* was reformed with regards to structure and content in 1746.[64] These various eighteenth-century academy attempts, foundations, and reforms have provoked some scholars to speak of an '*Akademiebewegung*' – an academy movement in the German states that was also manifest in many other European countries and realms.[65] If it was a 'movement', it is important to note that its results were not evenly spread but rather concentrated in the middle and southern parts of the empire.[66] Berlin, Munich, and Mannheim were political centres of the respective territories. The academies in Göttingen, Erfurt, Leipzig, and Prague were connected to the local universities. The academy in Munich was an exception in that it was a central institute connecting research in different places in Bavaria – such as Regensburg, Ingolstadt, and various monasteries – which conducted research. In their geography, the academies reflected the decentralised and fragmented structure of the Holy Roman Empire. The German Academy did not embody the idea of a national centre or the epitome of a country's research, because there was no unified nation or country.[67]

[63] Almost all European capitals had academies until the end of the eighteenth century, except for Vienna – the capital of the Holy Roman Empire – which had to wait until 1847. Johann Christoph Gottsched's plans to establish an academy in Vienna failed due to lack of political support. The academy of sciences in St. Petersburg was based on a plan by Leibniz and realised in 1724 – nine years after Leibniz's death (see Voss (1980), 50-51 and 70-71).
[64] Voss (1980), 52 and 58.
[65] Hammermayer (1976).
[66] Voss (1980), 54.
[67] Stichweh (1984), especially p. 53.

Nevertheless, academies and their members were connected with scholarship from further afield. 'Outside' scholars served as "scientific clearing points" who would send new publications and inform about new inventions and discoveries.[68] One problem was, however, the coordination of research and findings between the different academies. The production of academies' reports took a long time – sometimes up to two years. The academy in Berlin hoped to systematise international correspondence via its planned periodical "*Correspondance academique*" (1788): this ceased, however, after only two volumes. Prizes on particular questions were another way to communicate with scholars outside the respective academy and to initiate their participation and new themes of thinking and research. Prize-question policies varied by academy. Mannheim and Munich offered two prize questions each year, one on the natural science, one on the historical sciences. Berlin varied in terms of themes and numbers. Another means to knowledge exchange was the public lecture. Lectures reached, however, only limited numbers of audiences; prize questions in contrast addressed –as a "forum of the then European republic of letters" – a wider, also international, scientific public.[69] Neither could, however, compensate for the insufficient coordination and exchange of knowledge between scholars in different German states.[70]

To coordinate the research of the different academies, plans for a '*Teutsche Akademie*,' a German academy – an over-arching German academy – were developed but not implemented. The idea had been to connect the existing German academies, to coordinate their work, but not to replace them – rather to transcend the spatial and state differences. Johann Gottfried Herder developed the concept for such a '*Teutsche Akademie*' in his *Idee zum ersten patriotischen Institut für den Allgemeingeist Deutschlands* (1787).[71] Herder had been asked by the Margrave Karl Friedrich of Baden to develop such a plan in 1787, but his plan was not implemented. It has been argued that the plan was ahead of its time, as there was no "all-German consciousness" yet.[72]

[68] Voss (1980), 66.
[69] Voss (1980), 64.
[70] Kraus (1963), especially pp. 163-187, 525-533, 534-535; Voss (1980), especially p. 67.
[71] Herder (1787); Fukuoka (2007).
[72] Fukuoka (2007), 113.

Göttingen, Erfurt, Munich, Mannheim, and Prague were 'full' academies ('*Vollakademien*'). In contrast to the academies in early Berlin, these academies did not only focus on natural sciences, but also on historical-philological questions. Not all sciences could be dealt with however.[73] It has been argued that the humanities were mostly not much more than "decorative supplement."[74] A closer look at individual academies, however, reveals a more diverse picture. Between 1700 and 1740, the Berlin academy focused on two realms or 'classes' of knowledge: the physical sciences, and the historical-philological sciences (history, ecclesiastical history, and the German language). Later, with reforms under Frederick the Great in 1746, the academy changed its name to the '*Academie Royale des Sciences et Belles Lettres de Berlin*' and extended its work to four areas of work: '*philosophie experimentale*' (natural history), '*mathematique*' (mathematics), '*philosophie speculative*' (speculative philosophy), and '*belles lettres*' (languages, history, literature). Emphasis remained, nevertheless, on the natural sciences coined as '*philosophie experimentale*' and meaning 'natural history'. [75] Academies in Munich and Mannheim both also had '*Klassen*' – a natural scientific and a historical class. These two academies differed from other academies due to an emphasis on research of regional history (*Landesgeschichte*). Munich further added a class on '*belles lettres*' in 1776-1777; Mannheim added one on meteorology in 1781. Theology, often philosophy, jurisprudence, and constitutional law were, in contrast, not part of any of the academies. Medicine was part of the natural sciences. With the exception of Göttingen and Berlin, German academies did not focus on economics, technology, and agronomy, in contrast to research in France.[76]

Overall, academies exercised "supra-disciplinary control". They aimed to be the place where the sciences were researched with substantial financial support and scientific standards were set.[77] Research was, hence, a selection criterion for differentiating between the sciences. So, too, was utility an important criterion. The

[73] Voss (1980), 54 and 58; Stichweh (1984), 68-69.
[74] Voss (1980), 56.
[75] See Voss (1980) on the translation of '*philosophie experimentale*' as '*Naturgeschichte*' or 'natural history' (Voss (1980), 58).
[76] Kraus (1963), 534-553; Voss (1980), 56.
[77] Stichweh (1984), 53.

preference for natural sciences was a political choice, and a reflection of contemporaries' views on the importance of the sciences, since the purpose overall was considered to be the progress of humanity through progress in the sciences. Academies allowed a set number of members who were usually full members and resident in the academy's home town. These full members were often paid – in contrast to England where membership required a fee due to an unlimited membership policy.[78] A few university professors were members of academies but the great majority were rather independent scholars. Since membership was paid, employment at a university was not required as a source of income – "the academy gave the scholar a profession."[79] Membership was further not bound by religious adherence. Nevertheless, Protestant and Catholic members were not evenly spread. Berlin had a majority of Protestant members, and Munich a majority of Catholics.

An academy's performance depended on its technical equipment, its financial health, and the reputation of its members. Overall, this involved the quality of its print collections – in libraries or archives –, numismatic or archaeological collections, botanic gardens, cabinets of natural specimens, laboratories, observatories, and printing houses. All these conditions were met in Berlin, Munich, and Mannheim. Scholars at Mannheim undertook, in addition, systematic excursions to explore the region. The academies differed also by the degree of financial support through the respective state's prince or elector. Referring to this dependency on political patronage, Voss has argued that the academies were a typical form of organisation for the cultivation of sciences in monarchical states during the eighteenth century. Whilst France, Britain, Sweden, Russia, and the German states established academies, only the Netherlands and Switzerland founded societies that were not state institutions.[80]

While German academies were prominent early in the century, they arguably had a less significant position as institutions of science later in the century. Some scholars

[78] In consequence to the restricted numbers regarding membership, many German scholars looked for membership in other – non-state – societies (see also Hellmuth (1990)).
[79] Stichweh (1978), 90.
[80] Voss (1980), 55.

have even spoken of a "stagnation" by the turn of the century.[81] Others have pointed to an increasing communicative distance between the disciplines and have described a "virtual emigration of the sciences out of the academy", 'back' to the universities.[82] Science and research had always been present in the eighteenth-century German universities – and not only because the academies did not work on all sciences but also because the universities and academies complemented each other.[83]

During the eighteenth and early nineteenth century, the German states had more than forty universities – many more than in other European realms. Exact numbers varied due to closures and new foundations. Altogether, forty-seven universities can be listed – twenty-seven Protestant and twenty Catholic ones. Five of these universities were founded in the eighteenth century and one early in the nineteenth century: four Protestant and two Catholic ones (see table 3.4).[84]

Rudolf Stichweh has identified three factors that characterised the German universities: they were state institutions; they reflected the decentralised political structure of the Holy Roman Empire; and they indicated a cultural homogeneity of the German-speaking areas. The universities were strongly connected to the state authorities; they were "*Landesuniversitäten*" – "state universities" – whose research and teaching were guided by "*Territorialstaatspolitik*" – by territorial state policies, also when universities gained supra-local or supra-regional significance.[85] Each state aimed to support, influence, and control its universities, which often resulted in a "trend towards regionalism" and "provincial narrowness".[86] One author has called the situation in which "each tiny German state strove to support its own provincial university" the "territorial-confessional principle of university administration."[87] The territorial prince was the benefactor of a university which, therefore, saw its primary purpose in educating

[81] Voss (1980), 74.
[82] Stichweh (1978), 71.
[83] Voss (1980); Stichweh (1984), 69-74; Döring (2003), 16-17.
[84] Hammerstein (1985); Hammerstein (2005), 370. The forty-five universities include Königsberg which was technically not part of the Holy Roman Empire, but part of the Kingdom of Prussia (see chapter 1).
[85] Hammerstein (2005), 370.
[86] On "trend towards regionalism," see Stichweh (1984), 412, 1; on "provincial narrowness," see Möller (1986), 232; see also Turner (1975), 498
[87] Turner (1975), 498; Paulsen (1965); Möller (1986), 235.

state officials and supporting political-territorial identities and progress.[88] Many universities, therefore, placed restrictions upon professors' and students' mobility, not wanting to lose professors and students for economic and confessional reasons, retaining them to ensure prosperity and education in the state's dominant religion.[89]

| No | Place | Name | Existence | Religion |
|---|---|---|---|---|
| 1 | Altdorf | Norimbergensium Universitas, also Altdorfina or Academia norica or Universität Altdorf | 1622-1809 | Lutheran |
| 2 | Bamberg | Universitas Bambergensis | 1648-1733, 1733-1803 | Catholic (Jesuit) |
| 3 | Berlin | Friedrich-Wilhelms-Universität | 1810- | Lutheran |
| 4 | Bonn | Kurkölnische Universität | 1786-93, 1818- | Catholic |
| 5 | Breslau/Wroclaw | Caesareo regia et archiepiscopalis Universitas Brunae | 1702, 1811 | Catholic (Jesuit), later ecumenical (1811) |
| 6 | Brünn | see Olmütz | 1778-82 | |
| 7 | Bützow | Universität Bützow | 1758-1789 | Lutheran (Pietistic) |
| 8 | Brunswick | Collegium Carolinum | 1745- | Lutheran |
| 9 | Dillingen | Universität Dillingen | 1554-1804 | Catholic (Jesuit from 1564-1773) |
| 10 | Dorpat/Tartu | Universität Tartu | 1632-1710, 1802-93 | Lutheran |
| 11 | Duisburg | Reformierte Universität | 1655-1818 | Reformed |
| 12 | Eisenach | Handelsschule | 1784- | Lutheran |
| 13 | Erfurt | Universitas Erfurtina | 1392-1816 | Catholic (1302), then Lutheran (1521), then back to Catholic (1533) |
| 14 | Erfurt | Handelsschule | 1786- | Catholic |

[88] Turner (1975), 509; Boehm (1978), 21; Stichweg (1984), 75-76; Möller (1986), 235.
[89] Stichweh (1984), 75-76; see also Turner (1975), 509.

| | | | | |
|---|---|---|---|---|
| 15 | Erlangen/Bayreuth | Universitas Fridericiana Erlangensis; in Bayreuth between 1742-1743, then moved to Erlangen | 1743- | Lutheran |
| 16 | Frankfurt/Oder | Alma Mater Viadrina | 1506-1811 | Catholic (1506), later Reformed (1537) |
| 17 | Freiburg/Breisburg | Vorderösterreichische Universität, Academia Albertina, Albert-Ludwigs-Universität | 1460- | Catholic |
| 18 | Fulda | Universitas Fuldensium | 1734-1804 | Catholic (Jesuit & Benedictine) |
| 19 | Gießen | Academia Ludoviciana | 1607- 24, 1650-1945 | Lutheran |
| 20 | Göttingen | Georg-August-Universität | 1737- | Lutheran |
| 21 | Graz | Universitas Graecensis | 1585-1782, 1827- | Catholic (Jesuit until 1773) |
| 22 | Greifswald | Academia Gryphica | 1456-, 1539- | Catholic (1456), then Lutheran (1539) |
| 23 | Halle | Friedrichs-Universität | 1694- | Lutheran |
| 24 | Hamburg | Handlungssschule/ Handelsakademie | 1768- | Lutheran |
| 25 | Hannover | Handlungssschule/ Handelsakademie | 1791- | Lutheran |
| 26 | Heidelberg | Universitas studii Heidelbergensis; Ruprecht-Karls-Universität | 1385- | Catholic (1385), then Reformed (1544), then Lutheran (1578), then Catholic/Jesuit (1629), then Reformed (1652) |
| 27 | Helmstedt | Academia Julia; Julius-Karls-Universität | 1576-1809 | Lutheran |
| 28 | Herborn | Academia Nassauensis | 1584-1816 | Reformed |
| 29 | Ingolstadt | Universiät Ingolstadt, or Bayerische Landesuniversität Ingolstadt | 1472-1800 | Catholic |

| | | | | |
|---|---|---|---|---|
| 30 | Innsbruck | Universitas Litteraria Oenipontana | 1669-1782, 1792-1810, 1826- | Catholic (Jesuit until 1773). [Clark 1986, 621] |
| 31 | Jena | Academia Johan-Fridericiana | 1558- | Lutheran |
| 32 | Karlsruhe | Handelsschule | 1780- | |
| 33 | Kassel | Collegium Carolinum | 1709-91 | Reformed |
| 34 | Kiel | Universitas Chiloniensis | 1665- | Lutheran |
| 35 | Köln (Cologne) | Alma perantiqua semperque catholica Universitas Coloniensis | 1388-1796 | Catholic (Jesuit) |
| 36 | Königsberg | Academia Albertina | 1544- | Lutheran |
| 37 | Landshut | Universität Landshut, since 1802 called Ludwig-Maximilian-Universtät | 1800-1826 | Catholic |
| 38 | Leipzig | Academia Lipsiensis, Universitas Litterarum Lipsiensis | 1409- | Catholic (1409), then Lutheran (1539) |
| 39 | Lemberg | Johann-Casimir-Universität | 1661-1773, 1784-1871 | Catholic (Jesuit from 1661-1773) |
| 40 | Lübeck | Handelsschule | 1775- | |
| 41 | Mainz | Alma Electoralis Universitas Moguntina | 1477-1798 | Catholic (Jesuit,1562-1773) |
| 42 | Magdeburg | Gewerbs- und Handlungsschule | 1778- | Lutheran |
| 43 | Marburg | Universitas Marburgensis; Academia Alma Philippina, Philipps-Universität | 1527- | Lutheran (1541), Reformed (1605), then Lutheran (1624), then Reformed1653 |
| 44 | Munich | Handelsschule | 1793- | Catholic |
| 45 | Münster | Fürstbischöfliche Universität | 1773-1818 | Catholic |
| 46 | Olmütz | Caesaro regia ac episcopalis Universitas | 1581-1782, 1827-1855, 1855-1946 | Catholic (Jesuit until 1773) |
| 47 | Paderborn | Alma ad Paderam Universitas | 1614-1818 | Catholic (Jesuit until 1773) |
| 48 | Potsdam | Ingenieursakademie | 1788-1806 | Reformed |

| | | | | |
|---|---|---|---|---|
| 49 | Rinteln | Academia Holsato-Schaumbergica | 1621-1809 | Lutheran |
| 50 | Rostock | Universitas Rostochiensis, Academia Rhodopolitana | 1419- | Catholic (1419), then Lutheran (1531 or 1546) |
| 51 | Salzburg | Juvaviae studiorum Universitas, Alma Benedictino-Salisburgensis | 1625-1810 | Catholic (Benedictine) |
| 52 | Strasbourg | Treboccorum Universitas, Academia Argentinensis | 1621-1792, 1872-1918 | Lutheran |
| 53 | Stuttgart | Academia Carolina, Karls Hohe Schule (Hohe Karlsschule fuer ein paar Jahre zur Universität ernannt) | 1781-1794 | Lutheran |
| 54 | Trier | Universitas Treversensis antiquissima | 1473-1798 | Catholic (Jesuit, 1561-1773) |
| 55 | Tübingen | Eberhard Karls Universität Tübingen | 1477- | Catholic (1477), then Lutheran (1534) |
| 56 | Vienna | Universitas Vindobonensis | 1365- | Catholic (Jesuit, 1622-1773). |
| 57 | Weimar | Handelsschule | 1775- | |
| 58 | Wittenberg | Academia Leucorea; Universitas Vitebergensis | 1502-1817 | Catholic (1502), then Lutheran (1533) |
| 59 | Würzburg | Herbipolensium Universitas | 1402-13, 1582- | Catholic (Jesuit, 1582-1733) |

Table 3.4. 'Universities and colleges in the German states during the "long" eighteenth century – by alphabet.' Table based on Eulenburg (1906 [1904]), Möller (1986), Hammerstein and Herrmann (2005), and Naragon (2006).[90]

The large numbers of universities meant that most universities had relatively few students. The largest university by number of students in Protestant Germany was Halle with 1,000-1,5000 enrolments. Halle was followed by Jena and Leipzig with averages of 1,000 and 800 students respectively, and by Göttingen which was attended by on

[90] The displayed university names are the ones given at the time of their foundation and used during the eighteenth and early nineteenth century – hence, the mix of Latin and German names.

average 650 students.[91] These four universities were located in the centre of the Holy Roman Empire and belonged to the Protestant States Prussia, the Thuringian Lands, Saxony, and Hannover. Overall, they accounted for 40% of all students in the German states. The other 60% were spread relatively equally across the German states and circles.[92] Several universities remained in the "middle field" with enrolment numbers ranging between 100 and 400; this included Köln, Wittenberg, Königsberg, Ingolstadt, Vienna, Würzburg, Mainz, and Strasbourg. Ingolstadt, Vienna, Würzburg and Mainz were, thus, the leading Catholic universities. All other universities were rather small, with the smallest having been Kiel, Paderborn, Greifswald, Duisburg, and Herborn with less or hardly more than 100 students.[93] Johann David Michaelis noted in 1768:

> Protestant Germany is pestered with a superfluous amount of universities. Who can deny that? Not a single one of our universities is filled up with students; but the few [universities] that held relatively many [students] in numbers were about 2000 strong in their heyday, are now a bit under or above 1000. How large, in contrast, are the numbers of those [universities] that count about one to two hundred? And some come so far under this number, that there are as many teachers as students in the medical faculty. Would not four Lutheran and three Reformed universities be superabundant to instruct all those who devote to themselves to learning in Protestant Germany? I do not want to say that there have to be only be so few [universities]; I just want to give the reader reason to determine a relationship between the number of students and universities based on own reasoning.[94]

In comparing the German – especially the northern German – situation with other states, Michaelis noted: "In England which counts about 7 million [inhabitants] there study less than half of those who want to approach erudition in Protestant Germany. [...] To them, two universities, Oxford and Cambridge, are sufficient."[95] Michaels blamed the states' patriotism and the lack of a German-wide identity for the numbers: "This abundance of universities will steadily increase with the current way of thinking. Because even if a university becomes ever so poor, no one wants to close down

[91] Paulsen (1902), 57; Eulenberg (1906 [1904]), 145-151; see also Paulsen (1965), 57.
[92] Eulenburg (1906 [1904]), 151-181.
[93] Eulenburg (1906 [1904]), 130-188, especially pp. 145 and 153; Hammerstein (2005), 388.
[94] Michaelis (1768), 247-248.
[95] Michaelis (1768), 248.

any: the sovereign considers it, I do not quite know, as shame or as theft from church."[96] In consequence, numerous universities existed mostly to serve a state's purposes. For Michaelis again, large numbers of universities with low enrolments did not benefit the sciences: "Also, with this abundance of universities, none of them can flourish as much as it is necessary for scholarship."[97]

German Universities were both, teaching and research institutions.[98] The universities were based on the 'four-faculty system,' ('*Vier-Fakultäten-System*') comprising theology, jurisprudence, medicine, and the arts. The arts were divided into *trivium* and the *quadrivium*, covering philosophical disciplines and natural sciences respectively. This 'four-faculty-model' had prevailed in several European realms since the late Middle Ages, but in many countries were enlightenment thought spread, it was modified or no longer used, so for example in France, Spain, and England.[99] Whilst theology had been expelled from the universities and placed in seminaries in dominantly Catholic realms, most notably France and Spain, it was still taught in German universities, in Protestant and Catholic ones alike. It has, thus been stressed that the Enlightenment in the German states, the Protestant and Catholic ones alike, was not "anti-theological," but at most "anti-church".[100] In Germany, theology though had to surrender the lead in the hierarchy of the sciences to jurisprudence which became the "leading science" (also visible in the salaries), first in the Protestant universities, later in Catholic ones.[101] In England (in both Oxford and Cambridge) and in Scotland, in contrast, jurisprudence was not taught at the universities.[102] The arts, finally, were ascribed a propaedeutic function for the other three faculties for most of the eighteenth century in Germany. This dependency changed only at the end of the century when the humanities developed a sense of autonomy, what has been called a "paradigm shift in

[96] Michaelis (1768), 248.
[97] Michaelis (1768), 250.
[98] Paulsen (1902), 4-5; Boehm (1989), 270-271; Hammerstein (2005), 394.
[99] Boehm (1989), 270-271; Hammerstein (2005), 394.
[100] Hammerstein (2000), 365.
[101] Hammerstein (2000), 367.
[102] Hammerstein (2000), 365; see also Paulsen (1902), 58.

the humanities" first institutionalised with the foundation of the Humboldt University at Berlin in 1810.[103]

Since the universities in the German states served both research and higher education, the forms in which the sciences were produced were often books for teaching purposes: textbooks and compendia which most often were similar in organisation and content and fulfilled the same role: they were the basis for academic lectures.[104] The production of academic textbooks was also common elsewhere, for example in France. In France, these textbooks were, however, mainly addressed to the aristocratic upper class. In the German states, in contrast, they served primarily as compendia and basis in academic lectures, attended by the nobility, the growing bourgeoisie, and the very small minority of peasants and craftsmen. Beyond that such textbooks were read by the wider educated public.[105] Many professors aimed at writing their own textbooks, which resulted in a "tendency to literary overproduction".[106] Another widely-used and significant academic genre were academic periodicals. Scholars edited or published in periodical works to reach a wider audience. The considered benefits were twofold: a wider audience was a source of income necessary considering low salaries paid at universities, and journals were a means to spread enlightened ideas given "lack of direct political influence".[107]

Throughout the century, many German universities were criticised by contemporaries for their local or regional focus and for not providing sufficient financial support and political will to foster intellectual progress. Halle, Göttingen, and Erlangen/Bayreuth were founded in the seventeenth and eighteenth century and held strong enlightenment positions to encourage the interests of the territorial prince.[108] But these universities were reactions to wide spread criticism of the German universities and

[103] Schindling (1999), 58; Hammerstein (2005), 373-374.
[104] Stichweh (1984), 59; Jarausch (1986), 47; Hammerstein (2005), 385.
[105] Stichweh (1984), 59; see also Jarausch (1986), 47; Hammerstein (2005), 385; Boehm (1989), especially p. 258. On the return of the nobility from the aristocratic educational knight academies ('*Ritterakademien*') to the universities after the eighteenth-century university reforms, see Hammerstein (1989), 282.
[106] Paulsen (1902), 8; see also Jarausch (1986), 47
[107] See Jarausch (1986), 47, particularly on historical-political journals; see Fischer *et al.* (1999), Blanke (1999), and Griep (1999) on the role of the academic journals.
[108] Möller (1986), 238.

rather seen as exceptions.[109] The University of Halle (founded in 1694) had its 'peak of fame' in the 1740s with the rational philosophy of Christian Wolff and the prominence of his triad of cognition of history, philosophy, and mathematics.[110] The University of Göttingen (founded in 1735) was more progressive, and became the eighteenth-century German "centre of scholarship and teaching."[111] The University of Göttingen (*Georgia Augusta*) had been founded with the intention to provide new scholarly directions. When it was established, King George II (1683-1760) ruled Britain and Hanover. Given this political situation, the *Georgia Augusta* had an international focus, and was particularly influenced by British empiricism. In being linked to the scholarly principles of rational research and critical reason, Göttingen promoted new directions to existing subjects.[112]

Attacks of the universities' performances increased during the eighteenth century; they concerned the administration of the universities, the division of faculties and disciplines, and insufficient progress and research in the sciences. Strong criticism was also levelled against university lectures – against the universities' poor performance in their role as professional schools, particularly in the second half of the century when universities were increasingly seen as crucial institutions responsible for enlightened education and "education of national values" ("*National-Erziehung*").[113] Whilst school education saw comprehensive reforms during the eighteenth century, universities long time lagged behind in quality of lectures – especially with regards to pedagogy, didactics, and educational purpose. Criticism of the teaching methods and comments such as "arrogant pedantry, this monologic [teaching method]" were not unusual.[114] Some commentators went so far to demand the abolition of universities and the allocation of higher education to the professional colleges and research to the academies.[115]

[109] Turner (1975).
[110] Hartmann (2001).
[111] Turner (1975), 505; see also Bruford (1971), 245.
[112] Turner (1975), 505; Möller (1986), 238-240; Feuerstein-Herz (2004), 17-22, 29-30.
[113] "Education of national values" was a responsibility given to universities in the Catholic states, see Hammerstein (1989), 283.
[114] Anonymous critique from 1795 in Turner (1975), 502.
[115] See Turner (1975), 502, and Möller (1986), 232.

For these reasons, scholarship tended to gravitate towards the new academies of sciences, and arts and the division of labour between the universities and the academies and the role of research were debated.[116] Already early in the century, Christian Wolff in Halle postulated a clear division of tasks: universities as places of learning ('*Stätte der Lehre*'), and academies as places of research ('*Stätte der Forschung*').[117] The academies were also founded in response to the negative image of the universities and as complementary institutions; they were founded with the hope for greater progress of the sciences.[118] The academies were by many scholars seen as "alternative" to the universities.[119] The academies were, however, meant to only research those sciences in which "discoveries" could be made, thus deliberately excluding theology, jurisprudence, and metaphysics, which reflects an application-oriented understanding of science, common during the Enlightenment.[120]

The academies had further been intended to encourage reforms at the universities.[121] And indeed, as consequence of the wide criticism and the beginning research competition with the academies many universities undertook reforms of higher teaching and erudition. The reforms were implemented under authoritarian supervision and influence – through concrete political and legal changes or financial subsidies.[122] The reforms encouraged professors to produce more academic literature and targeted teaching content and methods and the hierarchy of the sciences. Modern philosophy replaced Aristotelian/scholastic philosophy; the principle of freedom of research and teaching ("*libertas sentiendi*") prevailed and dissolved authoritative teaching norms; and the systematisation of the academic lecture and university seminars replaced disputations.[123]

Reforms targeted teaching content and methods as well as the hierarchy of the sciences. Modern philosophy replaced Aristotelian/scholastic philosophy, the principle

[116] Turner (1975), 501.
[117] Christian Wolff (1721), 209 and 235 in Voss (1980), 45.
[118] Boehm (1978), 27.
[119] Boehn (1978), 26.
[120] Boehm (1978), 27, 28.
[121] Boehm (1978), 27.
[122] Boehm (1989), 268-269.
[123] Paulsen (1902), 59; Boehm (1978), 28.

of freedom of research and teaching ("*libertas sentiendi*") prevailed (instead of the given teaching norms, dependency on authorities, tradition and censorship), systematisation of the academic lecture and university seminars replaced disputations, and encouragement of professors to write books.[124]

University reforms occurred across the territories and at different times and speeds in different places. Many reform initiatives began in Göttingen and Halle and were copied – in variations and with different goals – across the empire. This reform movement ensured the survival of many universities. This included even hardly significant and small universities, such as Erfurt, Helmstedt, Duisburg, Rostock, Heidelberg, and Freiburg.[125] The reforms happened also across religions: when the Protestant universities regained reputation with their reforms, the Catholic universities followed, especially after the abolition of the Jesuit Order in 1773 when comprehensive educational reforms were undertaken in the Catholic lands. [126]

In consequence, most universities demonstrated their "capacity for renewal" and remained "superior" to the enlightened special colleges.[127] Scholars have called the post-reform universities "rejuvenated universit[ies]".[128] Research continued to be conducted at the universities leading to a "rivalry" between the German "academy movement" and the wide-spread university reforms.[129] Later in the century, Johann Stephan Pütter and Ernst Brandes in Göttingen clearly favoured research at universities in addition to the academies. Their argument was that universities represented the sciences in their entirety – a completeness ('*Vollständigkeit*') which academies did not reach.[130] In Berlin, in contrast, where no university was hosted, research was regarded as exclusive to the academies.[131] Overall, it has been argued that the academies were not the leading institution for the production of science in the eighteenth-century German states.[132]

[124] Paulsen (1902), 59; Boehm (1978), 28.
[125] Hammerstein (2000), 222, 224.
[126] Hammerstein (2000), 174, 224.
[127] Hammerstein (2005), 390.
[128] Hammerstein (1989), 282.
[129] Boehm (1978), 26.
[130] Stichweh (1978), 72.
[131] Stichweh (1978), 73.
[132] Möller (1986), 249.

That the universities "in mutual stimulation and competition" succeeded in remaining "important and significant" institutions that practiced the "unity of research and teaching" has been considered "institutional traditionalism" and the "special Character of the German university" compared to universities in other countries and realms, especially France and England, during the eighteenth century.[133] Recent scholarship has argued that the late eighteenth-century "period of reform, expansion, and reinvigoration" was particular to the German universities and made the universities the most important institution for the development of the sciences in the German states. The universities became "the vital centre for the dissemination of knowledge and the formation of educated public opinion" – a situation that was only similar in Scotland, the Netherlands, and Switzerland. [134] This intellectual significance applied to the new and reform universities Halle, Göttingen, and Erlangen, and also to older ones, such as Leipzig, Jena, Königsberg, Marburg, and Strasbourg and in Catholic Germany Ingolstadt, Mainz, Würzburg, Bamberg, Bonn, Wien, and Innsbruck who gained greater significance after the reforms.[135]

Even so, some contemporaries, such as Michaelis, stressed that academies lacked a representation in the sciences, and so were limited in terms of knowledge exchange and expertise, in contrast to universities:

> The society of professors of all faculties forms an advantage in just that regard. Because when the university is well-staffed in all disciplines, then the thinking and doubting professor who precisely for the invention of truth [*Erfindung der Wahrheit*] lacks only one Dictum – perhaps a very simple one – from another science, [he, this professor] will ask advice from his colleague, and then the discovery he longed for will be made. The Academies of sciences whose actual purpose it is to make new discoveries, can hardly have this benefit to the same degree as the best universities, because they [the academies] are only limited to a few sciences – physics, mathematics, and history – and members from the other parts of scholarship are lacking; and even within these narrow bounds they only admit members that are only great in one part of their science, and do not overlook the entire system; and it is not impossible that the society – provided that its members are all present in the same town – has a gap in physics,

[133] Hammerstein (2005), 371; Hammerstein (1989), 278; Paulsen (1902), 5; see also Hammerstein (2000), 232.
[134] Reill (1975), 5 and 6; Hammerstein (2005), 371.
[135] Hammerstein (1989), 283, 374-375; Hammerstein (2000), 171; Döring (2003), 17.

> mathematics, or history, in that not a single one of its current members would know how to answer the questions of hitherto discovered matters. A well-staffed university, in contrast, has professors in all parts of scholarship who – at least for their science – must learn the entire system without any gaps, and from whom I can ask advice about what is known and needed in my science. How much can a friendly intercourse – where one is not ashamed of asking the other, and where the other is obliging enough to answer – bring about new enlightenments?[136]

In addition, Michaelis pointed to the poor financial situation of scholars whilst he stressed the particular role of the German university as institution and employer that provided financial subsistence for German scholars:

> In Germany, universities still have some benefit for scholarship because they remedy a particular deficiency in our fatherland [*Vaterland*]. This has, except for Berlin, no maintenance or pay for scholars by profession who only [want to] devote themselves to the sciences without any other occupation, and who also want to live from it [scholarship]. That such people, and in sufficient numbers, are necessary for the conduct of the sciences is certainly beyond doubt: and I barely see, how, in Germany, they would be encouraged to sacrifice themselves for the sciences in hope of solid poverty, if the universities did not offer refuge.[137]

Michaelis argued that the political and religious fragmentation of the German states and the lack of big cities with audiences that could finance authorship explained why most scholars were affiliated to and conducting their research at universities: "It is partly the fault of the organisation [*Einrichtung*] and fragmentation of Germany that the princes rarely reward scholarship as mere scholarship: we have no London, no Paris which would allow a popular author to live from his authorship […] And how enormously seldom one finds this [reward of scholarship] outside of the universities? Experience shows that most of our great scholars really live at their university."[138]

Stichweh has argued that the German '*Akademie*' could not fulfil the role of the intellectual centre of the nation as it did in other western European countries. The political fragmentation of the Holy Roman Empire also entailed a comparatively

[136] Michaelis (1770), 148-149.
[137] Michaelis (1768), 110-111.
[138] Michaelis (1768), 112.

decentralised intellectual structure.[139] Instead, the academies ended up being just another intellectual institution besides the universities, but one with a focus on research of selected sciences.[140] When the universities succeeded in demonstrating their relevance as places of scientific research at the end of the eighteenth century, the academies became "refuges of scholarship."[141]

***Unity in the imagined scholarly community***

The policies and inward-foci of the many "jealous small states" prevented any political or economic centralisation. Their academic policies also prevented the centralisation of intellectual life. The lack of a book market of the size of London, Paris or even Edinburgh did not improve the economic situation of scholars.[142] Contemporaries regarded the lack of nationally leading institutions as a 'weakness': "it is the lack of general culture, of a national style, that German weakness lamented by Goethe, Nietzsche and so many others down to the present day."[143] As a consequence, many scholars felt a relative freedom of expression – despite censorship – since ideas were not considered to have any political or social effect anyway or, in case of unpopularity in one state, intellectual refuge might be found in another.[144] The lack of attack of the status quo – a certain scholarly conservatism – may be explained with this feeling of political powerlessness.

Another consequence was that Germans intellectuals were "not writing for a clearly defined public."[145] Since German scholars could hardly benefit economically from authorship, they were often writing without hurry for results, and developed a tradition of thoroughness.[146] German scholars further developed an interest in progress

[139] Stichweh (1984), 53.
[140] Stichweh (1984), 71.
[141] Stichweg (1984), 74.
[142] On Edinburgh, see Sher (2006), especially pp. 115-120 and 306-318.
[143] Bruford (1971), 292.
[144] Bruford (1971), especially p. 303.
[145] Bruford (1971), 302.
[146] Bruford (1971).

of humanity as a whole, in becoming good European or cosmopolitan citizens.[147] Focus on European or cosmopolitan identities paired with an appreciation and open-mindedness for new – foreign – ideas substituted for dissatisfaction with German political narrowness – the concentration on local and state matters.[148] Accordingly, Johann Wolfgang (von) Goethe asked: "Germany? But where is it located? I cannot find that land. Where the scholarly [land] begins, the political one ends." The German intellectual focus on cosmopolitanism has often been regarded as a "Utopian ideal" which served the German scholarly preference for (philosophical) speculation and abstraction rather than the involvement with concrete and practical problems related to the fact that scientific knowledge was foremost produced for the use in lectures.[149]

This scholarly utopia that was not reflected in the average German citizen whose perspectives was "frankly provincial."[150] Provincial identities and ties tended to be stronger than national ones. The absence of a mental national image did not help. Sentiments of separatism were stronger than of unity. Fatherland ('*Vaterland'*), for many citizens referred foremost to the home state. Other states were often seen as 'foreign parts' ('*Ausland*').[151] German scholars aimed to transcend this narrowness, and to transcend political, confessional, and spatial separation. The German 'republic of letters' – the '*Deutsche Gelehrtenrepublik*' – was the imagined 'place' for these purposes. German scholarship has been accused of having aspired to an "exclusively German republic."[152] Eighteenth-century German cosmopolitanism, multilingualism, and open-mindedness contradict this claim. What might appear as a solely German focus was but a first step in the process of overcoming obstacles to knowledge. As there was no centralised intellectual life, German scholars had to overcome political and confessional boundaries within the empire first. Stress on a German 'republic of letters' did not mean

[147] Especially Johann Gottfried Herder, Johann Wolfgang (von) Goethe, and Immanuel Kant. See Giesen (1998), and see Withers (2013) on Kant's cosmopolitanism.
[148] Bruford (1971), 304.
[149] Paulsen (1902), 8; Bruford (1971), 306.
[150] Bruford (1971), 308.
[151] Bruford (1971); Schmidt (2009).
[152] Daston (1991), 373.

the exclusion of foreign scholars. National groundedness was, rather, a precondition for cosmopolitan openness.

It has been argued that the idea of the 'republic of letters' was less used as an indicator for the community of scholars and, rather, to signify the communicative structures that connected scholars – that is, it primarily indicated the scholarly exchange of knowledge via letters.[153] Phillips has shown that the German eighteenth-century 'republic of letters' was more than an indicator of the means of communication. Referring to Friedrich Gottlieb Klopstock's *Deutsche Gelehrtenrepublik* (*German republic of letters*) (1774), Phillips points to different kinds of memberships and structures of the 'republic.'[154]

The imagined international community of scholars first carried the original Latin title '*res publica literaria*,' which became the 'republic of letters' in English and the 'république des lettres' in French. All these titles stress indeed – besides the form of governance – the means of communication – the process and product of scholarly work and exchange: correspondence, literature, and writing.[155] The German term '*Gelehrtenrepublik*,' in contrast, expresses a focus on the scholar – the '*Gelehrte*' – and less of a focus on scholarly writing. This focus on the person of the scholar further indicates the role of the scholar's social status in the German states – it signifies a social distinction, a distinction by estate. The scholarly estate was – despites the economic difficulties it came with – socially recognised. The aim to mark clearer distinctions between a scholar and the wider learned and writing public was also a way to reinforce the status of a scholar. Whilst several literary writers, such as Gotthold Ephraim Lessing and Friedrich Schiller, criticised the estate-based society, many other scholars did not attack the social status quo and, rather, aimed at a conservatism of social place and intellectual output. The 'republic' was a representation of these social differences within society; it was itself characterised by hierarchies and social distinctions.[156]

[153] Herbert Jaumann in Phillips (2012), 41-42.
[154] Phillips (2012), 42.
[155] For the Latin title, see Bosse (2008); see also Burke and Hsia (2007), 19; Stockhorst (2010), 7.
[156] Phillips (2012), 15-20, 44.

## The geographical background to the production of geography in the eighteenth-century German states

The previous two sections have shown that the political, religious, urban, and intellectual, landscapes of the Holy Roman Empire were characterised by fragmentation and dispersion. The empire was politically split into more than 300 smaller, middle-size, and a few larger states. *De facto* depending on the sovereign's choice and the influence of the respective church, either Protestantism or Catholicism was the official state religion. Almost fifty universities and eight academies existed across the empire. The German scholarly community, the '*Deutsche Gelehrtenrepublik*' was part of the wider international 'republic of letters.' German scholars absorbed cosmopolitan identities, and aimed to transcend any political, religious, or cultural differences. German scholars particularly also aimed at overcoming the German political reality – a political German narrowness. The appreciation of abstraction and utopian ideas reflected the search for intellectual freedom.

These intellectual, urban, religious, and political landscapes formed the context in which the production and circulation of geography as a science was possible. This section shows that the production of scholarly geography was sedentary in nature and based on a particular methodology that was meant to ensure the scientific status of geography and to bring greater international recognition for its German producers who hoped to transcend political narrowness and fragmentation. I begin by describing the envisioned methodology for writing geography, before elaborating on the scholarly aim for being noticed in the international republic of letters.

The production of scholarly geography as a science, then, meant 'writing' geography, the production of numerous compendia and textbooks, as it was common for German scholars. These can in several cases be described as 'geographical dinosaurs' resembling what Downes has called 'bibliographic dinosaurs.'[157] The pivotal role of the process of scholarly 'writing' geography is illustrated in the frontispiece of this German geographical compendium by Friedrich Ludwig Walther from 1785, which highlights the role of writing equipment, such as candle, books, and quill (see Fig. 3.8).

[157] See Downes (1971) on 'bibliographic dinosaurs'.


Figure 3.8. Frontispiece to Friedrich Ludwig Walther's (1785) *Neueste Erdkunde welche Asien, Afrika, Europa, Amerika, die Südländer ... und die Polarländer nebst einem Anhange von der natürlichen und wissenschaftlichen Erdkunde ... enthält* (*Newest Geography*).

That the production of geography as a science involved its textual production, was not a particular understanding of eighteenth-century German scholars; it was common practice in several European realms and northern America (see chapter 2). German scholars were, however, concerned with proving the status of geography as a science. According to German scholars, writing the science of geography, thus, ought to be based on a systematic methodology characterised by the processes of collecting,

reading, comparing, ordering, and rewriting geographical knowledge. This iterative process is captured and summed-up in a letter by Christoph Daniel Ebeling, the German geographer who strongly focused on the Americas and established a wide network of correspondence. Ebeling explained in a letter to Reverend John Eliot of Boston on 25 October 1809:

> [O]ur plan and its execution […], [i]t is the following (1) To describe each country from all the printed geographical books published in that country itself, critically examined, compared and (2) by sending sketches of our descriptions to friends in the principal cities of each country to revise them [..].(3) by communicating also our Mss [manuscripts] with such able men as had travelled in that land we describe. (4) by adding to each paragraph or section or chapter of the description the vouchers or quotations of such authors as they are taken from, in order that an inquisitive reader may see how recent the given accounts are, and how much they may be relied on. (5) If materials can be got from persons who have part in the government of such state itself, to prefer these, if their authenticity is not to be doubted. All this is not an easy task, and also a very expensive one, but the only, to make Geography to be a Science to be relied upon. Our Büshing (of 12 Editions of his large work in 10 volumes only the second Edition has been translated into english and even very neglectfully) began his career and was assisted and supported by most of the german princes, by the Emperess of Russia, by many ministers of Spain, Prussia, Austria, Danemark, but he died before he could complete his description of Asia whereof only 1 volume was finished. His work has been translated twice into French, twice into Italian, into the Russian and Hungarian language, as also into the Dutch.[158]

Ebeling's quote is from a letter written in 1809. The emphasis on the iterative nature of 'writing' scholarly geography is, however, not a methodology that occurs only early in the nineteenth century. It was practiced and stressed in the eighteenth century, especially during the last decades. Büsching used to send materials to reviewers.[159] Echoing Ebeling, August Ludwig von Schlözer explained his position on a "complete critical geography of America" in the preface of his *Neue Erdbeschreibung von Amerika. Aus dem Englischen* (1777) which was the first volume of his translation of Daniel Fenning's and Joseph Collyer's *A New System of Geography*. The emphasis on collection and critical reading and writing was further not only made by German

[158] Ebeling in a letter to Rev. Eliot, 25 October 1809 (see Ebeling 1925 ([1794-1817]), 393).
[159] See Kühn (1939).

scholars working on what was considered 'new' geography – knowledge of the earth from the sixteenth-century onwards (see chapter 4). Historical geography – knowledge of the earth before the sixteenth century – was to be dealt with in the same way. Hermann Schlichthorst, a Göttingen-based historical geographer working especially on old geography, stressed similar procedures and criteria for the production of a scholarly old geography. Schlichthorst stressed the importance of systematic collection, excerpting, and ordering in his essay (1790) on the "Principles based on which the system of an old geography [*Erdbeschreibung*] must be constituted".[160]

Schlichthorst argued, "the *collection* of the necessary materials is always the *first*, *most essential* and *crucial requirement*".[161] "The collection of materials must, however, be *absolutely complete*, must include every writer who presents geographical comments".[162] This meant the "consideration of everything that was present in poets and historians, mythologists and philosophers, astronomers, and actual geographers […] one must even pay attention to comments in the fragments of the for us lost scriptures of the old which the grammarians have kept on".[163] Second, Schlichthorst highlighted the practice of "special excerpting of every single writer"[164]: "Only by isolating all geographical facts of the Old [Greek and Roman writers] in the different periods in which the knowledge of the earth differed […] one can understand how far the Old's knowledge of the earth reached/stretched".[165] Finally, he pointed to the significance of ordering knowledge, and he preferred ordering by a geographer or writer – in the "*mos Geographorum* [by convention of geographers]."[166]

The indicated ideal methodologies for 'writing' geography began with questions of access and collection. The German obsession with systematic collection is further shown in a letter by Ebeling to William Bentley from 29 April 1796. Ebeling listed several American correspondents who supplied him with literature from America. He

[160] See Schlichthorst (1790), preface.
[161] Schlichthorst (1790), 161, emphasis in original.
[162] Schlichthorst (1790), 162, emphasis in original.
[163] Schlichthorst (1790), 162.
[164] Schlichthorst (1790), 164.
[165] Schlichthorst (1790), 163.
[166] Schlichthorst (1790), 165, emphasis in original.

stressed the significance of this collection by mentioning that he did not only collect for himself, but also acted as a collection 'agent' on American geographical information for the library of Göttingen University:

> What is published of new Books in Philadelphia I get mostly not only for myself, but also for the University of Göttingen. Therefore, I would be you, Sir, to help me only in collecting these new Books which are published in the New England States, Vermont included. Mr. Noah Webster furnishes me with Books from New York. Mr. Carey, Mr. Ormod and the very kind Dr. Smith Baron with those from Philadelphia and the southern States. Dr. Ramsay was also exceedingly obliging to me in procuring me some valuable materials. How much I owe to the great goodness of the Rev. Dr. Belknap and many other members of the Historical Society, you will know already. I have no words to praise their kindness. Dr. Morse also furnished me with many materials, and I was happy to send him something about Europe for his Book.[167]

Ebeling who lived and worked in Hamburg highlighted Göttingen University and its library as a centre for the collection of materials. Göttingen Library (illustrated in Fig. 3.9) became a German 'hub' for the collection of printed works.

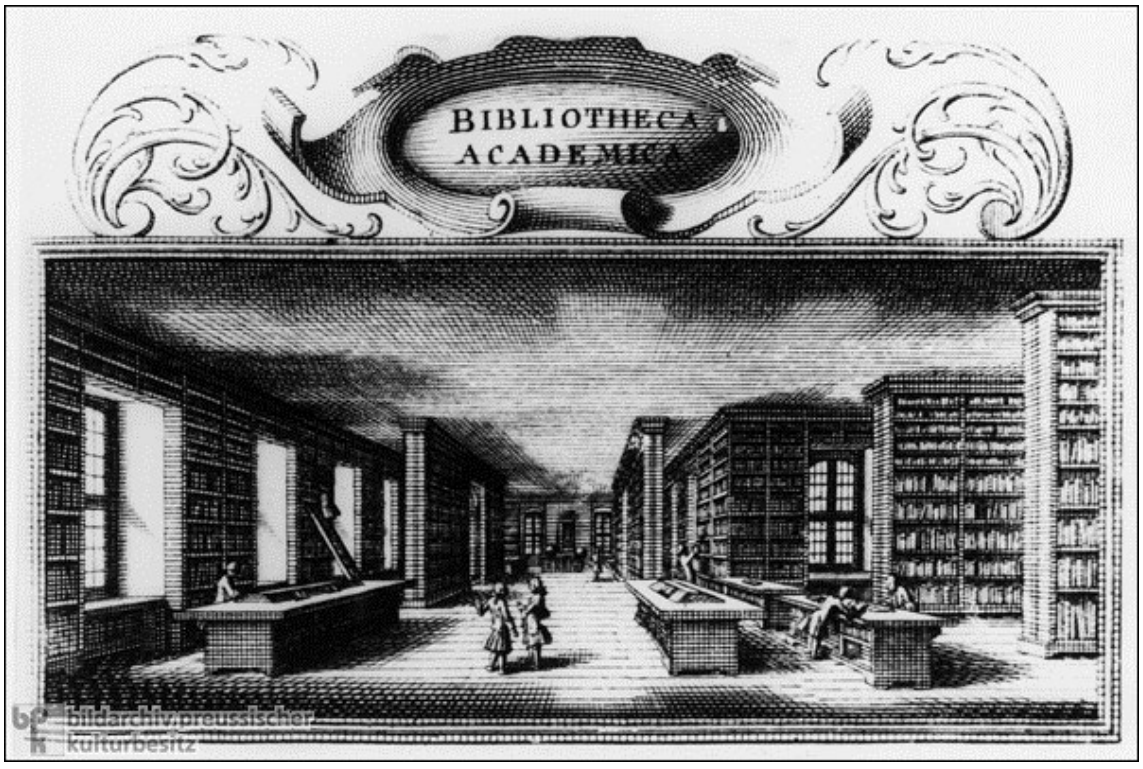



Figure 3.9. 'The library hall of Göttingen University (eighteenth century).' ('*Der Bibliothekssaal der Göttinger Universität (18. Jahrhundert)*.') Source: © Bildarchiv Preußischer Kulturbesitz (1971).

Ebeling further explained, "no other nation has such a stock of geographical materials as the German […]. In the library of that University (now estimated at 120 or 130 thousand volumes) you would find the most valuable books of every country in original. We have translators from every language, and rather translate far to [sic] much".[168]

Research has demonstrated the amount of literature coming from different countries that undertook explorations, such as France, Britain, the Netherlands, Sweden, Russia, and – in a more limited way – Spain and Portugal.[169] German geographical authors expressed concerns regarding knowledge access about other empires or countries. Regarding information from overseas, appraisal for past and current, especially for British advances, were mixed with dissatisfaction about Portuguese and Spanish secrecy of information. Johann Christoph Gatterer stated in the new edition of his *Kurzer Begriff der Geographie* that he had been able to include new information on North America from the "remarkable British discoveries." His elaborations on South America had, however, remained mostly unchanged due to the "diffident manner" of exploration and secrecy of information circulation practiced by the Spanish and Portuguese.[170] Frustration about lack of access to information was often paired with complaints about the slowness of information travel and the lack of detail regarding the observer and his qualities – about insufficient proofs of credibility. This concerned especially 'new' geography.[171] Hager bemoaned,

> Mr V. rightly claims in his preface that it is difficult to write a true introduction for a new geography, since we are receiving very little reliable news from the countries faraway. Most information is only received through general rumour. And even if these [news] were true, then, we are still missing competent

[168] Ebeling, letter to Jeremey Belknap from 28 April 1798 (see Ebeling (1891), 622).
[169] See Willenberg (2008).
[170] See Gatterer (1793), preface.
[171] As geography was considered a historical science by most German scholars, it was not only differentiated by theme into mathematical, physical, and political (or historical or civil) geography but also by time into 'old', 'middle,' and 'new' (and sometimes 'newer' and 'newest') geography. 'Old' geography began with Moses and ended in the fifth century, 'middle' geography continued until the end of the Middle Ages, and 'new' geography finally started in the fifteenth or sixteenth century. See chapter 4 on the modes of classifying geographical knowledge.

> witnesses. Given that someone had the chance to visit the most noble places of the faraway countries, so is it still often the case that many things have already changed until the news become known to us.[172]

In order to spread knowledge about the existence of foreign printed and unprinted works and to encourage library collection, correspondence and exchange of literature amongst German scholars and educated men was regarded as increasingly important. Hager asked to share information about foreign prints:

> Yes, I am asking – not only in my name but in the name of all enthusiasts of geography – that those who own Geographies written in Italian, Portuguese, Spanish, French, English etc. entrust these to me most kindly for a short period of time and against some insurance which I willingly offer to everyone, or otherwise, to simply offer me sufficient news about them [these geographies]. With such goodwill against the history of geography, one could hope that one could gradually construct a complete history of this noble science.[173]

In addition, periodical works such as magazines and journals were used to inform by reference, summary, and reprint – with or without comments – about the existence of printed and unprinted works, maps, and information from personal correspondence with foreign scholars, libraries, or publishers. Geographical exchange was, hence, also a way of forming and strengthening the German scholarly community (see chapter 5).

With reference to German erudition and, particularly, scholarly diligence and languages-learning, German advantages in writing geography were stressed. Ebeling argued that the collection and understanding of unprinted and printed geographical texts were particularly possible for German scholars, as Germans were present in all countries and studied many languages: "for you will find [a] German in every country of the world, and we are forced by our maner [sic] of studies and trade to learn almost every language. At Göttingen, for example, there are teachers not only of all the ancient languages, but of the Portuguese, the Spanish, Italian, English, Danish, Sweedish, Hungarian, and even Russian language."[174] Büsch stressed that the knowledge of several vernacular languages was regarded as a standard necessity for German scholars and

[172] Hager (1764-1778), issue 10, 1766, 765.
[173] Hager (1766), issue 10, 736-37.
[174] Ebeling, letter to Jeremey Belknap from 28 April 1798 (see Ebeling (1891), 622).

authors: "We Germans benefit most from the fact that over here every scholar who is serious about the sciences learns at least two or three living languages. Our German scholars are therefore able to read the foreign monthly journals, and at least the authors [*Verfasser*] of German journals make use of them."[175]

The references to German scholarship and German contributions to systematic geographical literature were also an expression of a German scholarly confidence that was mixed with dissatisfaction about a perceived insufficient international scholarly recognition, particularly on the part of their British and French colleagues. This German wish for greater estimation had different reasons. First, German scholars felt they deserved recognition regardless of their dependency on overseas knowledge via French, British or Spanish, and Portuguese voyagers. As the German states barely participated in world trade, colonial politics, and geographical explorations during the eighteenth century, participation of German researchers in overseas scientific explorations was relatively limited. The fragmentation of the Holy Roman Empire, the lack of political and financial will or capacity of the singular electors were likely reasons for this situation.[176] The cases of Carsten Niebuhr's sole survival of the Danish Arabia expedition (1761-1767), Reinhold and George Forster who joined James Cook's second voyage (1772-1775), and Alexander von Humboldt's expedition to the Americas together with the French botanist Aimé Bonpland (1799-1804) are the most prominent examples of German participation in foreign overseas explorations.[177] British and French writers, in contrast, could rely on knowledge from fellow countrymen who had travelled and explored the world.[178] The German emphasis on writing geography with a particular methodology was also a way to establish a justification for greater international credit of German geographical writings.

[175] Büsch (1775), 192.
[176] Bruford (1971), 293.
[177] See Kühn (1939); Stagl (1995). On Carsten Niebuhr see Kühn (1939), 27, 99-112 and Wiesehöfer and Conermann (2002), on the Forsters see Beck (1982), 54-82, and Withers (2007), 89-90, 94; and on Alexander von Humboldt, see Kühn (1939), 125, 142-144, Beck (1982), 83-102, Withers (2007), 17, 96, 124, Outram (1999).
[178] Bruford (1971), 293.

The German wish for greater international and national recognition was further related to the fact that concerning translations German was foremost a host-language during the eighteenth century.[179] Recent scholarship concerned with "*where* and *how* the Enlightenment manifested itself" has argued that translation between vernacular languages was a "major vehicle" for the circulation of ideas during the Enlightenment (for both fictional and scholarly literature), especially since texts written for international readers were no longer produced in or translated into Latin.[180] And the German Enlightenment built particularly strongly on translations.[181]

French and from the mid-century also English were the predominant origin languages or "linguistic hub[s]" during the eighteenth century.[182] Oz-Salzberger has called the eighteenth-century translation history a "drama of two languages: French, Europe's almost-unrivalled lingua franca, and English, a newcomer to the cosmopolitan scene that rose to challenge French in essential areas of cultural creativity."[183] German, in contrast kept a "debt" to its French, English, and Scottish "mentors" throughout the century.[184] Only toward the end of the century, more works were translated from German into other languages – especially into Northern and Eastern European ones, and German became significant for secondary translations.[185]

Scholars have suggested that the rise of the vernacular languages ran parallel to a growth of "linguistic awareness" and "self-aware national cultures prior to the nineteenth-century 'age of nationalism'."[186] Whilst a host-language demonstrated openness for ideas from outside, an origin-language was likely to indicate great literary and scholarly achievements and to be a "dominant cultural model."[187] Burke and Hsia have called this import-export business of translation the "political economy of

[179] Oz-Salzberger (2007), 385-387; Burke and Hsia (2007), 37.
[180] Hesse (2007), 499; Oz-Salzberger (2007), 387; Stockhorst (2010), 8.
[181] Oz-Salzberger (2007), 385-387; Burke and Hsia (2007), 37.
[182] Stockhorst (2010), 14; Oz-Salzberger (2007), 394. English even overcame French during the late eighteenth century (see Oz-Salzberger (2007), 394).
[183] Oz-Salzberger (2007), 394.
[184] Oz-Salzberger (2007), 396.
[185] Oz-Salzberger (2007), 396.
[186] Oz-Salzberger (2007), 396, 387; Stockhorst (2010), 8.
[187] Burke and Hsia (2007), 24; Stockhorst (2010), 8.

translation."[188] If we take Oz-Salzberger's argument that the translation business turned the 'republic of letters' into a 'democracy of letters,' then the suggestion that German scholars were keen on playing a role in that democracy holds true as well, also when notoriously admiring other nations, particularly Britain and France.[189]

Büsch bemoaned: "Just because the French, the English, and the Italians do not yet regard the knowledge of German as a prerequisite of a good journalist, we are a nation not much known for our scholarship despite all our diligence in the sciences and despite the abundance of new discoveries for which we can praise ourselves. Sure enough, they therefore lack the acquaintance with so many important expansions of the useful sciences and arts for which we can praise ourselves for so many reasons; they arduously emulate us in some subjects where they can make use of the fruits of German diligence."[190] Ebeling likewise argued that German scholarship, including geography, could inform geographical scholars in other countries if they were able to read German: "Dr Morse has sent me his Gazetteer, which I have not yet had leisure to read and make use of, as I gratefully do. I wished the Doctor would have leisure or inclination to learn German, not only for my own benefit, as he could read my book, but also for his own advantage with regard to his European Geography, which I dare say has been cultivated very much by our German authors, and in daily getting new valuable supplements by great many able writers."[191]

Overall, German scholars' comments indicate a partial dissatisfaction with the scientific and cultural history of the German states. The comments are also a response to perceived insufficient foreign recognition or even disparagement of eighteenth-century German sciences and cultures. In 1764, Hager bemoaned, "the old Germans worshipped hunt and war more than the sciences; consequently, they wrote down little or possibly nothing."[192] On the other hand, Hager saw the contemporary underestimation of German scholarship by scholars from other countries, especially France, unjustified. "Why have

[188] Burke and Hsia (2007), 22.
[189] Oz-Salzberger (2007), 389; on German adimiration of foreign scholars see Fabian (1976), 119.
[190] Büsch (1775), 192.
[191] Ebeling, letter to Jeremy Belknap from 28 April 1798 (see Ebeling (1794-1818)).
[192] Hager (1764-1778), 226.

the otherwise so witty French left the honour to a German to first bring the geography of the Middle Ages to light?"[193] At the turn of the century, the confidence of German geographers had markedly increased. Liechtenstern claimed in 1801, "general geography [*Erdkunde*] has reached its greatest perfection [*Vervollkommung*] especially by help of German talents and German diligence."[194] The scholars' stress on the advantages of German erudition and their criticism of insufficient knowledge of the German language and German scholarship in other countries were intended to raise the German position amongst the European nations in science making. The German emphasis on the importance of systematised 'writing' of geography was, hence, an emphasis of aspects of geography in which they could engage and – due to their scholarly culture – excel in. It was the construction of a German scholarly comparative advantage worth estimation, as it was perceived by German scholars working on geography. German scholars so aimed to enhance the importance of their existence – their (German) contribution to progress in geography.

The prioritisation of sedentary geography was justified by calling the writing process the task of the scholar – an intellectually demanding task that was not impaired by the limitations of subjective observation. German scholars valued the processes of writing more than primary acquisition of knowledge. Writing geography happened at 'home' – in the cabinet or the library – the preferred space of a German scholar whose patrons were hardly willing to invest in field expeditions. 'Writing' involved processes in which German scholars could engage in without travelling the world. The aspiration for making a substantial international contribution to the making of geography was based on the enlightenment aim for progress in science and humanity.[195] The aim for progress in the sciences and geography had particularly grown stronger in the German states since the philosopher Christian Wolff and his adherents had revalued the overall purpose of the sciences ('*Wissenschaften*') earlier in the century. These scholars had reemphasised the role of science-making. The sciences had, however, also a social function, and were considered to serve the improvement of society and humanity, to

[193] Hager (1764), 58.
[194] Liechtenstern (1801), 2.
[195] Vierhaus (1985).

serve the '*Glückseligkeit der Menschheit*' – *eudaimonia*, the bliss or happiness of humankind.[196] Progress in the sciences was regarded as an indicator for the degree of civilisation. German scholars had an interest in stressing the qualities of the German mode of erudition (the '*Deutsche Gelehrsamkeit*') – here with respect to geography – in order to prove and demonstrate the presence of a scientific culture and scientific improvements to themselves and their foreign colleagues.

## Conclusion

Overall, the chapter has shown the political, urban, confessional, and academic fragmentation of the Holy Roman Empire and the scholarly aim to transcend this fragmentation in the imagined scholarly community of a German '*Gelehrtenrepublik*'. I have further demonstrated that the eighteenth-century German preference of 'writing' geography – the prioritisation of print production – was an expression of these German conditions of doing science and geography. The emphasis on writing geography systematically was a way to stress German geographical contributions and the entitlement to greater international scholarly recognition – despite the limited opportunities of exploration in contrast to their British and French scholars. Thus, writing geography and German geographical exchange became a way of forming a German scholarly community.

The relationship between writing geography and its meaning and purpose shall be elaborated on in more detail in the following chapters. I will show that the German engagement with geography was reflected in the geographical production of print – of books and periodicals across German states and towns. Geographical print production – its writing and its publishing – was present in almost every state. Particularly outstanding centres of geographical writing were cities and towns of enlightenment erudition, such as Halle, Götttingen, and Nuremberg. Leading places of publishing and selling were German centres of trade and commerce, especially Leipzig, Berlin, and

[196] See Meyer (2008), 40. I have translated '*Glückseligkeit*' as '*eudaimonia*'. Other contemporary scholars working on the eighteenth-century German states have used 'bliss' as a translation (see Oz-Salzberger (1995)). The term '*Glückseligkeit*' refers to the state of being happy and joyful (inner joy and peace) and blissful (see Engelhardt (1981); Pleines (1984)).

Nuremberg. At the same time, geographical print was written and published in many towns across the German states. Overall, the majority of geographical authors lived in the predominantly Protestant states and in towns. Geographical print production in Catholic states increased only after the abolition of the Jesuit Order in 1773 (see chapter 5).

Geographical authors were members both of the German republic of letters and of the growing educated public. As it was difficult to generate income from authorship, most authors of geographical print were employed at universities, colleges, and schools, or had either state or ecclesiastical occupations. It was also not uncommon to switch between these different occupations during a lifetime. Like other German scholars, geographical intellectuals were politically and financially dependent on political sovereigns. Most geographical authors dedicated their works to their rulers and financial patrons. Geographical scholars – those who excelled with the production of scholarly geography were often members of academies or societies. The German focus on social change via enlightenment and the consequent emphasis on education found expression in numerous books written for geographical education. The production of geographical print for education was related to the link between scholarship and education – to the common scholarly employment as lecturers and teachers. Geographical print reflected the growth in German literacy and authorship, and geographical authors were often driven by the aim to overcome German political narrowness (see chapter 6).

Before elaborating in more detail on the print culture of German geography, the next chapter shall focus on the definition and interpretative meaning of geography. I will show how the conditions of writing and teaching the science could affect geography's textual meaning and classification.

**4**

# Defining and categorising geography

## Introduction: the nature of geography in eighteenth-century German geographical print

> Everyone knows doctor Büsching's exceptional diligence; he has not only read endless amounts [of text] but has provided an earth description [*Erdbeschreibung*] which – what is much less common – he produced with greatest possible accuracy and a great conception of order (which is essential when studying such a muddled and multifarious field).[1]

This quote by the philosopher and geographer Johann Georg Müller encapsulates the eighteenth-century German understanding and character of geography as a complex and multifaceted science whose body of knowledge needed to be put to order with accuracy. Such ordering practices were common amongst Enlightenment scholars and authors of geography books. Those books which others have called 'bibliographic dinosaurs' offered not only the range of geographical knowledge; they also illustrated the eighteenth-century understanding of geography generally.[2]

For Mayhew, geography's books, its compendia, grammars, and gazetteers are crucial in understanding the nature of eighteenth-century geography.[3] Mayhew's work affords a method which I have here extended to other forms of geographical print. The genre of German geographical print culture was wide: my research has not only revealed that geographical compendia, grammars, and gazetteers were produced, but also that high numbers of geographical textbooks and encyclopaedias, and periodical works were

[1] Müller (1789), 122. In 1754, Anton Friedrich Büsching (1724-1793) published the first edition of his *Neue Erdbeschreibung* (*New earth description*), a German geographical compendium which became the most important and referenced geography book in eighteenth century Germany, as others have argued before and this thesis will confirm. Büsching's *Erdbeschreibung* saw numerous editions until his death and was even continued by a group of German geographers when Büsching died in 1793.
[2] See Downes (1971).
[3] See Mayhew (2000, 2001).

circulated (see chapter 5).[4] Based on these different sources of print, this chapter discusses the understanding of geography amongst the German eighteenth-century scholarly community. The chapter shows that – as elsewhere in Europe at that time – geography was understood as a science concerned with the description of the earth's surface. As elsewhere, the geographical body of knowledge was subject to classification. German Enlightenment classificatory practices, however, differed somewhat from the ones carried out by European neighbours.

The chapter argues that although the epistemological framework of the science of geography was fixed and concerned the description of the earth, the interpretations of this definition – the paradigm of meaning – was debated. A certain degree of interpretative difference – by author, place, and form of publication – was manifest in different classifications of geography's knowledge and its relation to other realms of study. The practice and use of geography – its writing and instruction – could and did alter the interpretation of the subject. This chapter is concerned with the definition and interpretative meaning of geography. Questions of print practice and the practice of geography in education are discussed in more detail in chapters 5 and 6 respectively.

The chapter suggests that the common paradigm of geography as a historical science classified by the three criteria subject matter, time, and scope was widely debated. Several variations of these classifications existed, and differences in semantics regarding the meaning of geographical vocabulary occurred. Geography's position in the system of sciences was also debated. Geography was seen as mathematical and/or an empirical science. Many authors regarded geography as a historical science, whilst early nineteenth-century authors made claims for geography as a natural or physical science.

This chapter is divided into three sections. The first section outlines the overall definition of geography, and discusses variations in meaning reflected in geographical terminologies and geographical classificatory practices. The second section discusses geography's position in the system of sciences and dwells on geography's 'outer boundaries' – its boundaries with related sciences, such as history and statistics. Section

[4] See Mayhew (2000, 2001). On periodicals and eighteenth-century German scientific discourse, see Griep (1999) and Blanke (1999).

three examines the relationship between the variability in meaning and the practice of geography.

## Defining and categorising geography

This first section is concerned with the definition of the science and the boundaries 'within' geography. It illustrates the common classificatory mode of subject matter, time, and scope, which resulted, first, in a distinction between mathematical, physical, and political geography; second, in a division into old, middle, and newer geography, and thirdly, in a differentiation between different scales and scopes of geographical knowledge. Most authors of geography books and editors of geographical periodicals offered a definition of '*Geographie*'. All authors pointed to the term's Greek roots when explaining the meaning of geography: 'γεωγραφία' (*geo-grafia)* composed of the two Greek terms 'γη' translated as 'earth' [*Erde*] and 'γραφη' or 'γραφω' meaning 'description' [*Beschreibung*] and 'I write' [*ich schreibe*]. '*Geographie*' was literally interpreted and practiced as description of the earth's surface. The geographer Johann Georg Hager (1709-1777), teacher of geography in a grammar school (*Gymnasium*) in Chemnitz, Saxony, explained in his *Geography for Beginners* (*Geographie für die Anfänger*) (1755a) and in his compendium *Detailed Geography* (*Ausführliche Geographie*) (1755b) how "The word geography [*Geographie*] comes from Greek, namely from γεω, the earth, and from γραφία, I write; that is why some [authors] call it *Erdbeschreibung* [earth description]. This word [*Geographie*] has – as many other foreign words – acquired citizenship long time ago."[5] The common reference to the Greek origin of the German term '*Geographie*' indicated an understanding of geography as rooted in ancient Greek and Roman times with Herodotus, Ptolemy and Strabo as key writers and examples. In the course of increasing patriotic sentiments and the spread of vernacular languages in eighteenth-century print, German authors promoted two Germanic versions of the Greek-derived term '*Geographie*': '*Erdbeschreibung*' and '*Erdkunde*.'

[5] Hager (1755a), 7-8; also Hager (1775b).

The term '*Erdbeschreibung*' was commonly used as an equivalent to '*Geographie*' throughout the eighteenth century. Anton Friedrich Büsching's *Neue Erdbeschreibung* whose first part was published in 1754 may have been the catalyst for an increased use of Germanic terms – in text and in titles. Some have analysed that the rise in use of Germanic geographical vocabulary might also have been a reflection of spreading German national sentiments.[6] The term '*Erdbeschreibung*' had, however, been used in print before Büsching, since at least the seventeenth century. Erhard Weigel, for example, used it in 1670 in the title of his book *Ober- und Unter-Welt, das ist eine neue Art der Himmels- und Erdkugel ... Erdbeschreibung besser zu begreifen* (*The world of the living and underworld, that is a new way …to better apprehend geography* [Erdbeschreibung]).

The word '*Erdkunde*,' on the other hand, took root only later in the eighteenth century. '*Erkunde*' appeared in Johann Heinrich Schumacher's (1754) *Attempt to enlighten on the dark and hidden secrets in the hieroglyphic notions of the Egyptians…based on documents from history, Erdkunde...* (*Versuch, die dunklen und versteckten Geheimnisse in den hieroglyphischen Denkbildern der Egypter, Chaldäer.. aus den Urkunden der verborgenen Geschichte, der Erdkunde,... näher aufzuklären*.) Johann Christoph Adelung presented the term '*Erdkunde*' in 1774 as an equivalent to '*Erdbeschreibung*' and '*Geographie*' in his *Grammatical-critical dictionary of the high German dialect* (*Grammatisch-kritisches Wörterbuch der hochdeutschen Mundart)*, and Johann Christoph Gatterer used it in his (1775 [ printed in 1778]) *Outline of Geography* (*Abriß der Geographie*). In 1783, Theophil Friedrich Ehrmann entitled his *Magazine for geography* [Erdkunde] *and ethnography*) (*Magazin der Erd- und Völkerkunde*) explicitly applying the term in his periodical's title. Several authors followed who replaced '*Geographie*' or '*Erdbeschreibung*' with '*Erdkunde*' in their geographical books' titles, such as Friedrich Ludwig Walther in his 1785 compendium *Newest* Erdkunde (*Neueste Erdkunde* ..) and Friedrich Gottlieb Canzler in his (1790-1791) *Outline of geography*

[6] See, for example, Bowen (1981) and Withers (2007).

[Erdkunde] *in all its aspects for the use in university lectures* (*Abriß der Erdkunde nach ihrem ganzen Umfang zum Gebrauch bey Vorlesungen*).[7]

Whilst most authors argued that the three terms were equivalent in meaning, some scholars attributed a slightly differing albeit unclear signification – especially between '*Erdkunde*' and '*Erdbeschreibung*'.[8] One attempt of differentiation considered a distinction of the body of geographical knowledge from the science and the method of study. For Adam Christian Gaspari (1752-1830) in his *Complete compendium of earth description* (*Vollständiges Handbuch der Erdbeschreibung*) (1797), the three terms were often used interchangeably: he argued that "*Erdkunde*" differed from "*Erdbeschreibung*" in referring to the body of knowledge whilst "*Erdbeschreibung*" concerned the science to be studied:

> §.1. Character of geography. The words *Erdbeschreibung* and *Geographie* do not only express the same concept but literally say one and the same thing – the former as an original German word, the latter as a word taken and adopted from the Greek language [Gaspari explains the Greek origins in a footnote]. These are talking names for the science in which the state and nature of our heavenly body [*Weltkörper*], the earth, is being described, and they [these terms] therefore carry their explanation with them. The word *Erdkunde* actually expresses the individual knowledge [*Kenntnis*] of the earth which is gained through the study of *Erdbeschreibung*; it [Erdkunde] is however often also used as synonym for *Erdbeschreibung*. Remark: the term borrowed from Greek [*Geographie*] is more convenient for use than the original German since the former allows an adjective transmutation which the latter does not tolerate.[9]

Fabri (1808, 123) explained in his elaboration on the etymology of the term 'geography' that '*Geographie*,' '*Erdbeschreibung*,' and '*Erdkunde*' were often used synonymously. Like Gaspari, he saw, however, a difference between '*Erdkunde*' and '*Erdbeschreibung*': the former would refer to the "individual knowledges about the

[7] Adelung's *Grammatisch-kritisches Wörterbuch der hochdeutschen Mundart* (1774-1786, second edition 1793-1801). In this chapter, I will leave the German term '*Erdkunde'* untranslated to demonstrate the distinction between '*Geographie'* and '*Erdkunde*' when necessary.
[8] Since some authors saw nuanced differences in meaning between the German terms '*Erdbeschreibung*,' '*Erdkunde*,' or '*Geographie*,' I keep the respective German term in translated quotes.
[9] Gaspari (1797), 1. The noun '*Geographie*' can be transformed into the adjective '*geographisch*' (geographical). The noun '*Erdbeschreibung*' could in today's German technically be transformed into the adjective '*erdbeschreibend*' which Gaspari, however, did not have or consider as a possibility.

earth", whereas the latter concerned the science and method, the study of these knowledges:

> The word *Geographie* is borrowed from the Greek language, from *γεω* the earth, and *γράφω drawing, writing, describing*; – with these words, geography expresses exactly that concept which is contained in the word *Erdbeschreibung*. Often also *Erdkunde* is used as synonym for *Erdbeschreibung* in an objective sense; more correctly, however, one understands *Erkunde* as the individual knowledge of the earth, which is gained through the study of *Erdbeschreibung*.[10]

Some late eighteenth-century geographers argued that despite their similar or identical meanings, the term '*Erdkunde*' ought to be preferred over '*Geographie*'. Friedrich Gottlieb Canzler (1764-1811) gave in his compendium *Outline of Geography* (*Abriss der Erdkunde*) (1790) two reasons for favour in '*Erdkunde*'; he delineated between an 'objective' and a 'subjective' reason:

> §. 2. About the notion of *Erdkunde*. Two not unimportant main reasons justify the use of the word *Erdkunde* instead of the so far almost always used and introduced term *Geographie*. The concept of *Erdkunde* can be defined in two ways [...]: 1. objective [*Erdkunde*] where it is: 'a correct depiction' –, and 2. subjective [*Erdkunde*], where it gives: 'correct knowledge' of the true shape and nature of the earth and of its inhabitants in every time period.[11]

In his *Encyclopädie der Historischen Hauptwissenschaften und deren Hülfs-Doktrinen* (1808) Fabri elaborated at length on geography and repeated the distinction between objective and subjective geography. He preferred the term '*Geographie*' when speaking of earth description 'objectively' and equated subjective geography with '*Erdkunde*':

> §. 31 *Geographie*, or *Erdbeschreibung*, we call
> I. in a wider and distinctive sense
> 1. *objective*, in *material relation*, that historic-homochronistic science which deals with the state and the nature of our planet, the earth, in their spatial relations. *Geographical* in an *objective sense* means that which concerns the scientific homochronistic content of the state and nature of the earth[12]

[10] Fabri (1808), 123.
[11] Canzler (1790), ix-x.
[12] Fabri (1808) distinguished between what he called "*homochronistic* or *synchronistic*" and "*heterochronistic*" main (historical) sciences which referred to sciences that studied objects in their "*spatial relations*" and their "*time relations*" respectively (Fabri (1808), 116) [*Raum-Verhältnisse*, and *Zeit-Verhältnisse*], what might be called synchronistic and diachronistic today. The former signified objects spread out across space: "*objects next to* and *apart from each other*, in *relationships of co-*

2. *subjective*, *Erdkunde*, systematic knowledge of the contents regarding the state and nature of our terrestrial body,

II. In *a more narrow* sense, one understands by *objective Geographie* all epitomes [*Inbegriffe*] that concern the state and nature of a smaller or larger part of the earth, such as when one speaks of *geographies of England,* of *Switzerland*, of *Lappland* etc. One uses the words *geographical* and *geographers* in the same sense.

III. The word *Geographie* is sometimes quite inappropriately confined to the *production of maps*.[13]

Fabri (1808) also noted that some scholars used the term "*Geographie*" in a more limited way, such as map making. Elsewhere Fabri identified and summarised further differences regarding the precise understanding of the term "geography". He pointed to some of these variations without indicating the authors' names – with the exception of Büsching:

> II. As the term history […], the term geography [*Geographie*] is expressed differently by individual writers.
>
> 1. Ant. Fridr. [Anton Friedrich] Büsching, in his *Erdbeschreibung* [*Neue Erdbeschreibung*], part one, eighth edition (Hamburg, 1787), page 9 calls *Erdbeschreibung* all detailed news of the natural and civic state of the known earth [*Erdboden*].
> 2. Others explain geography [*Geographie*] as a science of the natural state of the known [parts of the] earth [*Erdboden*].
> 3. Again others: as a science of the earth [*Erdboden*], or
> 4. as a science which treats the description of the earth by addressing each part according to its natural and political state based on rational theorems and reliable information.[14]

These variations summarised in the quote by Fabri (1808) indicate that the object of study was not always understood in the same way by German geographical authors. Whilst some scholars restricted '*Geographie*,' '*Erdbeschreibung*' or '*Erdkunde*' by its body of empirical knowledge – the physical and human state of the *known* earth (for example Büsching), others were concerned with the entire earth which included parts of

---

*existence*, in *spatial differences* [spread/expanded out in space]" (Fabri (1808), 116). Fabri understood "*heterochronistic*" sciences signifying objects "following one another in *succeeding relations*, in *time differences*, in series of time-moments (Fabri (1808), 117).

[13] Fabri (1808), 121-122.

[14] Fabri (1808), 123.

the earth on which there was no empirical information accessible to German authors. The difference was one of concept and range. Whilst some regarded geography as an empirical science concerned with the description of "known" fact, others saw a difference between the body of knowledge and the theoretical notion of the science itself, i.e., a concern with everything knowable about the earth.

Thus, while geography was understood overall as 'description of the earth,' nuances in meaning were present amongst German geographical authors. The use of two different Germanic terms in addition to the German version of the Greek-rooted term '*Geographie*' – '*Erdbeschreibung*' and '*Erdkunde*' – meant that there were subtle variations in definition for the three terms. In general, however, Mayhew's (2001) claim that geography in Europe between *c.*1600 and *c.*1850 was "a clearly defined practice" with a "stable definition" – the description of the earth – may in general be confirmed for the German states.[15] There were, however, details and specificities regarding the understanding and practice of eighteenth-century German "geography" in terms of place, time, and author.

### *The science of geography*

Geography was regarded as a science as it was characterised by certain methods of "doing" geography. In the eighteenth-century German context, this was evident in three main forms: describing the earth in a textual, pictorial, and in oral forms – knowledge production and dissemination in the form of written text, maps and globes, and in spoken lessons and lectures.

Geography was further regarded as a science as it comprised a body of knowledge that could be subject to classification. This body of knowledge was meant to illustrate the nature of the earth's surface, the spatial distribution of terrestrial objects and subjects. As Mayhew has argued for the British context: "Geography was a coherent body of knowledge about a clearly-defined object, namely the situation of places on the earth and the content of those places in natural and human terms".[16] The methods of

[15] Mayhew (2001), 383.
[16] Mayhew (2000), 30.

ordering and categorising the geographical body of knowledge were of great concern to all German geographical authors and were part of the German geographical discourse. Before elaborating on the criteria by which the earth was described and the body of geographical knowledge to be classified in books for public, teacher, and student audiences, I shall address variations in questions of scale.

With respect to spatial scale, 'geo' was understood to refer to the earth as a whole. Geography was distinguished from related fields of knowledge that targeted smaller or larger spatial scales, such as cosmography which addressed the '*Kosmos*,' the universe, and chorography or topography which concerned regional and local scales respectively. Hager (1755a, 1755b) advised his readers not to confuse the different scales of observation: "One has to make sure not to confuse geography with cosmography, chorography, topography, hydrography, and orography".[17] Johann Christoph Gatterer (1775 [1778]) not only stressed that geography, chorography, and topography addressed different spatial scales of description, but also highlighted that they were invented at different times: "Topography, chorography, and geography did not emerge at the same time; and one has to differentiate between all three of them".[18]

Other scholars understood chorography and topography, however, as part of geography, and geography as part of cosmography – earlier as well as later in the century. Eberhard David Hauber (1695-1765), geographer and theologian, suggested in his *Useful discourse on the current state of geography, especially in Germany* (*Nützlicher Discours von dem Gegenwärtigen Zustand der Geographie, besonders in Teutschland)* (1727) that "in this regard, geography is only a part of cosmography, or *Weltbeschreibung* [description of the world]; if one wants to acquire secure news about one part, one needs to be informed thoroughly about the true nature of the whole".[19] Büsching (1754) pointed out that cosmography's scope was wider than that of geography, he nevertheless considered geography part of cosmography: "Since the earth is only part of the world, *Erdbeschreibung* is also only part of *Weltbeschreibung* (*Cosmographia*) with which it stands in close connection und from which it receives

[17] Hager (1755a), 7-8.
[18] Gatterer (1775 [1778]), 113.
[19] Hauber (1727), 10.

many elucidations".[20] Friedrich Christian Franz (1766-1847) understood geography as part of cosmology in his *Textbook for regional geography and ethnography* (*Lehrbuch der Länder- und Völkerkunde*) (1788): "As the earth is a part of the universe, also geography – the description of the earth's characteristics – is part of *Weltbeschreibung* [description of the world] or cosmology".[21] Friedrich Gottlieb Canzler (1764-1811) stated in his *Outline of Geography* (*Abriß der Erdkunde*) (1790): "*Erdkunde*, which constitutes part of cosmography or *Weltbeschreibung*".[22]

The philosopher and author of encyclopaedias, Wilhelm Traugott Krug, professor of philosophy at the University of Wittenberg, distinguished between universal and partial geography – "*Universalgeographie*" and "*Parzialgeographie*" – the former relating to the entire earth, the latter to its parts.[23] This distinction was expressed in several early eighteenth-century German geography books, as Bowen (1981) has noted for Johann Hübner (1668-1731) and his *Short questions from ancient and modern geography* (*Kurtze Fragen aus der alten und neuen Geographie*).[24] In applying this distinction, Krug (1796) offered a definition under which chorography and topography were considered part of geography overall. Some authors established an even clearer hierarchical ordering relationship between these scales of description. Franz (1788) specified the relationship between geography, chorography, and topography and considered the latter two as belonging to a particular field of geography: to political geography: "Subordinate parts of political *Erdbeschreibung* are chorography and topography: the former describes individual regions and districts, and the latter individual towns and places".[25] For Fabri (1808), chorography was geography in a narrow sense: "In a more narrow *sense*, one calls also those descriptions 'geographies' [*Geographien*] which concern the state and nature of a smaller or larger part of our

[20] Büsching (1754), 33.
[21] Franz (1788), ix.
[22] Canzler (1790), x.
[23] Krug (1796), 59.
[24] Bowen (1981), 160, mistakenly refers to Hübner's sixth edition from 1696 as the first German edition. The year of the first edition is not known, the second edition was published in Leipzig in 1693.
[25] Franz (1788), xii.

earth; in that case, one speaks of *geographies of England*, of *Switzerland*, of *Lappland* etc".[26]

Historians of geography have shown that in other European contexts geography was understood as distinct from chorography and topography. For Britain, Mayhew and Withers have shown that geography was different from cosmography, the study of the world (universe), and different from topography and chorography. There, chorography was also seen as a description of a country, and topography discussed even smaller parts of the earth. Mayhew (2001) has argued "Geography was part of a hierarchy of investigations organized according to the spatial scale of their focus. Geography was a body of knowledge at a particular spatial scale, that of the earth as a whole, and this distinguished it from the related enquiries of cosmography at the larger scale of the universe, and of chorography and topography at the scales of the nation, the region and the locality".[27] Many authors of German geographical print also clearly distinguished between different scales of observation and description; they likewise differentiated between geography, cosmography, chorography, and topography.

### *Classifying geographical knowledge*

Having briefly illustrated the definition of geography as a science and its semantic differences, I shall now elaborate on the practices of classifying geography, and its variations. German authors of geography books and periodicals regarded geography as a science whose body of knowledge was subject to classification, and they differentiated geography into several subfields of study. The enlightenment enterprise of classifying and ordering knowledge which seemed inherent to geography's nature was practiced in different ways by German authors.[28] Classifications used by eighteenth-century German scholars often deviated from the traditional differentiation between a mathematical

[26] Fabri (1808), 121-122.
[27] Mayhew (2001), 387. See also Withers and Mayhew (2002).
[28] See Withers (1993, 1996a).

(general) tradition and a descriptive (specific) geographical tradition common amongst British geographers and some French geographers.[29]

In the German states, not all authors of geographical books identified the same kind or the same number of classification criteria and not all writers understood these criteria in the same way. Three common features were, nevertheless, shared by almost all authors: a differentiation by subject matter ('*Gegenstand*') – into mathematical, physical, and political geography –; by time ('*Zeit*') – often into old, middle, and new (and sometimes also newer and newest) geography describing the state of the earth and geographical knowledge during the Greek and Roman times, the Middle Ages, and the modern era; and, thirdly, by scale and scope ('*Umfang*'), a differentiation made by those who considered descriptions of smaller scales part of geography.

Gaspari (1797) summarised these modes of classification, stating "there are three ways of classifying *Geographie*, these are object, time and scope".[30] Fabri (1808) also summarised the German convention of subdividing geographical knowledge by these three common methods in his *Encyclopaedia of historical main sciences and their auxiliary sciences* (*Encyclopädie der historischen Hauptwissenschaften und deren Hülfswissenschaften*) (1808): "1) by *content*, 2) by treating the geographical contents by *moments of time* [*Zeit-Momente*], 3) by *scope* of the geographical contents".[31] Gaspari (1797) explained the relevance of the first criterion – the object ('*Gegenstand*') – by pointing to three aspects of description: mathematical, physical, and political geography:

> The object of geography is always the earth. It [the earth] can be observed from different perspectives; for that reason a closer definition of the object is necessary. The object is either the earth as measurable heavenly body [*Weltkörper*], or the earth in its natural state, or the earth in its division into countries [*Länder*] and states [*Staaten*]. A threefold geography [*Erdbeschreibung*] follows from these three different aspects: 1) astronomical or mathematical [geography] which examines shape, size, and movement of the earth and explains related lines and points; 2) physical [geography] which

[29] See Mayhew (2000, 2001) and Withers (2007) for Britain, and Godlewska (1999) and Heffernan (2003) for France, Withers (2007). Whilst the mathematical tradition was concerned with describing the location of places by latitude and longitude often following Ptolemy, the textual tradition concerned the collection of information of natural and human conditions often in the manner of Strabo.
[30] Gaspari (1797), 3.
[31] Fabri (1808), 128, emphasis in original.

> focusses on the state and observation of the earth's surface; and 3) political [geography] which examines the earth as a dwelling place of reasonable creatures who have shared the earth and relate to one another in various ways.[32]

Fabri (1808) emphasised these three possible lenses under which the earth could be studied when distinguishing geographical knowledge by its content: "Content and object of geography is and remains the earth […] a) as *measurable heavenly body* [*Weltkörper*], b) as a *bulk* of different natural spatial states of their bodies and its related outward appearances, c) as *dwelling place* of rational beings of our kind who have shared the earth". For Fabri, this distinction resulted in "3 special kinds of geographies": "1) a *mathematical* one, (from which some distinguish astronomical geography), 2) a physical (natural) one, and 3) a political geography."[33]

Many other geographers and philosophers producing encyclopaedias applied this distinction. The Wittenberg professor for philosophy Krug differentiated between political, physical, and mathematical geography.[34] With reference to classification by object, some authors offered a slightly different hierarchical and ordering structure to the threefold and hierarchically equal distinction between mathematical, physical, and political geography discussed by Gaspari (1797) and Farbi (1808). Büsching in his *Neue Erdbeschreibung* proposed an overall binary differentiation between natural and civil [*bürgerliche*] *Erdbeschreibung*. He considered natural *Erdbeschreibung* to consist of mathematical and physical geography. In contrast to most authors, he replaced the term "*politische*" (political) geography with the term "*bürgerliche*" (civil) geography. Franz was one of a few scholars who also promoted this binary division between natural and civil geography [*Erdbeschreibung*] in his *Textbook for regional geography and ethnography* (*Lehrbuch der Länder- und Völkerkunde)* (1788). For Franz, natural geography included mathematical and physical geography. He also considered chorography and topography as subordinate fields to civil geography.

These cases illustrate some variability in terms of naming and ordering geographical knowledge by object. Indeed, the threefold mode of describing the earth

[32] Gaspari (1797), 3.
[33] Fabri (1808), 128-129.
[34] Krug (1796), 46.

was even contested in its entirety by a few scholars. In his encyclopaedia, Fabri quoted a critique by "Professor Rommel" who rejected any thematic differentiation within geography in the geographical periodical *Allgemeine Geographischen Ephemeriden*: "There is no physical and no political geography, nor a mathematical geography. Geography is geography, and those terms are as little applicable as if one was speaking of a juridical or military statistic of a state".[35] Fabri responded by emphasising the need to acknowledge different classificatory practices amongst geographers in an encyclopaedia, "Even after this condemning judgement, one must not leave out the description of the main divisions and their essential contents in contemporary encyclopaedic attempts".[36] Other scholars, in turn, used a thematic differentiation that was based on more than three themes. Immanuel Kant (1802) divided geography into six categories: physical, mathematical, political, moral, theological, and literary or mercantile geography.[37]

The second common criterion of ordering geographical knowledge concerned time. Eighteenth-century scholars gave importance to the history of geography and geographical knowledge.[38] Many writers argued for the necessity to distinguish geography and geographical knowledge by different historical time periods by pointing to the changing nature of the political and physical state of earth and the growing amount of geographical knowledge over time. Gaspari (1797) explained:

> The second classification criterion is time. The teachings of mathematical *Erdbeschreibung* are immutable and eternal; because the earth always keeps the same size, the same figure, the same movement, the same position in the solar system which nature has given to it for the period of the current generation, consequently also all points, lines, and classifications which relate to that. This is very different when considering the political state of the earth which depends on morals causes, and on human obstinacy and foolishness.[…] This [the political state of the earth] sees daily changes and so also every geographical compendium. We further do not yet know the earth completely; our *Erdkunde* is considerably widened and corrected from time to time. Just compare Hübner and Fabri, but he [Hübner] was as well right at his time. For that reason, it is essential

[35] Rommel (1806), 396, in Fabri (1808), 129-130, fn.
[36] Fabri (1808), 130, fn.
[37] Kant (1839 [1802]), 427, 430-431.
[38] Mayhew (2001) has reminded us to distinguish between geographical knowledge and geography as a science.

> to exactly indicate the point in time for which the respective geography holds. One can imagine an uncountable series of differing geographical systems which were all once and successively true. Meanwhile one can group them into three classes based on the three main periods in history: 1) old geography […], 2) middle [geography] […]; 3) newer [geography].[39]

Changes of geography's subject of inquiry – the earth's surface – and its increasing exploration made the study of past states of knowledge and states of the earth worthwhile. For Franz, similar to Gatterer, political geography underwent permanent changes of "truth": "What is strictly true today is no longer true tomorrow".[40] Whilst some, such as Franz (1790) and Gaspari (1797), saw changes mainly in the political state of the earth, others saw changes in the physical conditions. To Johann Dietrich Hartmann in his 1784 *Short outline of newest geography for the use in schools* (*Kurzer Abriß der neuesten Erdbeschreibung zum Gebrauche in Schulen*) (2nd edition), "No other realm of human knowledge requires new textbooks so frequently, simply because there are daily changes in the moral, physical and political conditions of countries".[41] Krug (1796) also argued that political and physical geography experienced changes over time.[42] He spoke of "political-historical" and "physical-historical," the former describing different political institutions over time, the latter describing changes of the natural environment due to human influence, especially civilisation.[43] He differentiated between four time periods: old, middle, new, newest geography, the first two forming "a geography of the *past* time," the last two forming "a geography of the *present* time".[44]

The threefold differentiation between 'old,' 'middle,' and 'new' geography followed a convention that had prevailed in the historical science since humanism.[45] The additional temporal category 'newest' geography was a reflection of the fact that enlightenment scholars had the "awareness that [the Enlightenment] was epoch-making:

[39] Gaspari (1797), 4.
[40] Franz (1790), preface.
[41] Hartmann (1784), preface.
[42] Krug (1796), 60.
[43] Krug (1796), 56, 57
[44] Krug (1796), 60, emphasis in original; see also pp. 50 and 61.
[45] Muhlack (1991), 159-175.

an epoch that fundamentally separated present and future from the past".[46] Krug's separation between only "two main divisions," "present" and "past," was an expression of that separation between a past and a new epoch – the enlightened European present. The suggestion to group 'old,' 'middle,' and 'new' geography into one category and 'newest' geography into another was shared by a few other scholars and was a reference to Gatterer's (1770) suggestion to write the history of geography "wholly and in complete coherence".[47] The history of geographical knowledge was, thus, also considered essential, since geography was long time regarded as an historical science. As a historical science, it was one purpose of geography to describe the spatio-temporal changeability of terrestrial objects: to describe "the true state of the earth and its inhabitants (as far as they are known) how they were at the times of the Tower of Babel, the times of Moses, Caesar, Vespasian, of Charlemagne, or Cromwell."[48] Other scholars argued that the conjunction between geography and history was a tradition followed on from the Greek geographer Strabo who had suggested that "the geographical describing of a country would only get its full light through history".[49]

The history of geography was likewise considered important in order to support the argument that geography as a science underwent and required constant progress. Gaspari (1797) argued that past geographical knowledge was necessary to evaluate the current state of geography. For several parts of the earth, recent information was not accessible and past knowledge was therefore crucial:

> Normally only the current state of the earth would be of interest to us; yet, in order to understand history and in order to evaluate the presence, knowledge about previous states of the earth is necessary; that is why also older geography becomes important to us. With respect to most countries, we have to content ourselves with information that is several years or even centuries old: that is why it is easy to think that even the best political history will never be able to show the true state of the earth synchronistically at the time of the writer; a large part of that knowledge presented actually belongs to older geography and has only

[46] Muhlack (1991), 175.
[47] Canzler (1790), x-xi and Gatterer (1770), 10. On reference to Gatterer, see also Canzler (1790), xi, footnote *).
[48] Fabri (1790), 1. See also Hering (1728), 17, fn 12, on the purpose of historical sciences to depict change over time and space.
[49] Mannert (1788), preface, x. See Müller (1789), 124, on the same argument.

> been incorporated into newest geography since there are no more recent information.[50]

Geographical authors agreed on the importance of depicting the "gradual progress [*stufenweisen Fortschritte*] which geography, as a science, had made in the different ages".[51] Old geography was then, for example, also a depiction of "how the ancients [Greeks and Romans] imagined the earth."[52] Mannert (1788) called the geography of the Greeks and Romans even the "childhood of the science".[53] Such descriptions of geography's progress would also include "a history of the progress which the Greeks and Romans gradually made in geography."[54] Overall, descriptions of progress on the "step ladder to completeness [*Stufenleiter der Vollkommenheit*]" ought to include discussions of the "principle and hypotheses past authors had adopted, where they [the authors] had been mistaken and why" and elaborations on the gradual development of tools ("*Hilfsmittel*") "which served to improve geography as a science."[55]

Interestingly, the history of geography was occasionally labelled "geography of geography". This phrase was meant to signify the spatiality of geographical knowledge and discovery over time. This phrase was used to illustrate that the history of geography was geographical by nature.[56] In the eyes of German geographers, different nations and peoples had been involved in exploring the earth's surface and different peoples had acquired different geographical knowledges – with Greek and Roman writers the first geographical writers in Europe. Gatterer spoke of "Geography [*Geographie*] of geography [*Geographie*] (as history of history): or depiction of the scope of geography [*Erdkunde*] for every noteworthy time period".[57] Canzler (1795) explained the importance of the history of geography [*Erdkunde*] which he argued should be called

[50] Gaspari (1797), 4-5.
[51] Canzler (1790), xi.
[52] Mannert (1788), preface, iii.
[53] Mannert (1788), 3.
[54] Mannert (1788), preface, vii.
[55] Canzler (1790), preface, ix-x; Mannert (1788), 2 and 1.
[56] Withers (2007), 148, has argued that also the "History of Man" was by several eighteenth-century scholars regarded as a "Geography of Man" (see Withers (2007), 148, and Withers (2012), 10-11, 11-12).
[57] Gatterer (1775), xxxiv.

"Geography [*Geographie*] of geography [*Geographie*]", otherwise, he claimed, geography would not be complete and "far too dissatisfactory".[58]

The historical perspective was, thus, relevant to demonstrate the progress of geography and the sciences – a key paradigm of the Enlightenment. German geographical authors were often historians, theologians or philosophers by training who shared a "*Fortschrittsglaube*," a belief in progress and continuity.[59] The term "*Fortschritt*" (progress) had entered the German debates only in the 1780s in the eighteenth century and it was based on the idea that the body of knowledge was cohesive but not necessarily completed yet (see chapter 7 on the matter of completeness).[60] For German scholars, ideas on progress of the sciences not necessarily connected to questions of moral or social progress; Koselleck has spoken of a "hiatus" between scientific-technical progress and moral and socio-political progress.[61] At the same time, the aim for progress became a moral duty confirmed in history.[62] Different German scholars shared different concepts of what progress meant whilst being aware of the diversity and ambivalences of concurrent ideas.[63] German scholars read the historical theories of various foreign, especially French and Scottish authors.[64]

Some German geographers shared an appreciation for progress related to ideas of stadial theory and conjectural history, as prevalent particularly amongst Scottish scholars during the send half of the eighteenth-century. Advocates of stadial theory argued that human society progressed through stages of development. Scottish authors conceptualised four stages: "hunting, pastoralism, agrarianism, and commercialism".[65] Other authors, for example Anne-Robert-Jacque Turgot, a French geographer, considered three stages: "hunters, shepherds, and husbandmen".[66] Conjectural theory,

[58] Canzler (1795), 3-13.
[59] On "*Fortschrittsglaube*" see Kraus (1963), 56.
[60] On the body of knowledge see Hammerstein (1989), 278. See Koselleck (1975), 380 on the history of the terms used.
[61] Koselleck (1975), 400.
[62] Koselleck (1975), 384.
[63] See Prüfer (2002), 183.
[64] See Bödeker *et al*. (1986), 14; Reill (1975), 9, 55-57.
[65] Withers (2007), 149.
[66] Withers (2007), 149. See Withers (2007), 263, footnote 38 on an overview of research literature on ideas of stadial and conjectural theory.

then, concerned the different stages and the "dynamic relation" and passage from one to another, finally "barbarism to civility".[67] Sprengel (1782) argued that "barbarians" were not able to have the same state of knowledge and culture as civilised nations: "Barbarians and savages in their isolated […] state do not have a concept of *Erdkunde* or *Erdbeschreibung* [geography]."[68] He continued, "nomads or settled savages on this low level of human culture gain knowledge of *Erdkunde* [geography] […] only then when a storm throws their fragile canoes on a distant shore […]"[69] Gatterer then spoke of "not enlightened peoples," "half enlightened peoples," "fully enlightened peoples".[70] Whilst several geographical scholars expressed an understanding of geography progressing in stages, such comments on stages of civilisation were rather rare.

Whilst some geographical writers adhered to ideas of linear progress and progress in stages, others favoured cyclical models or historical models composed of both linear and cyclical elements.[71] Müller (1789) acknowledged, "[o]f course, a barbarism as that of the Middle Ages can destroy much."[72] He further was concerned that "the human being seems to succumb under the weight of his knowledge." Müller's words express an understanding of human knowledge that could both grow or develop in cycles. He thought about the near future that "the arts and sciences are reaching a degree of tensions […] that will lead either to a paradise of peace and eudaimonia [*Glückseligkeit*] or to the most dangerous surge."[73] At the same time, he argued that the 'oldest' geographers had "seen the world with very different, I want so say, more child-like and poetic eyes […] everything [was] full of magic and wonder for them."[74] Müller made direct reference to Johann Gottfried Herder and emphasised humanity and

[67] Wokler (1996), 33; Withers (2007), 149. The term 'conjectural history' was coined by Dugald Stewart (Wokler (1996), 34-35). It has also been pointed out that similar ideas were already present in seventeenth-century philosophy, jurisprudence, and theology (see Wokler (1996), 35).
[68] Sprengel (1792), 1-2.
[69] Sprengel (1792), 5.
[70] Gatterer (1775 [1778]), xix.
[71] With respect to eighteenth-century historians, Prüfer (2002) has sopken of "peculiar compounds" to describe hybrid historical models that connected elements of linear and cyclical historical theories (see Prüfer (2002), 187). See also Bödeker *et al*. 1986, 19 and Reill (1975), 9, 55-57 on the different postitions and models.
[72] Müller (1789), 133, fn *).
[73] Müller (1789), 141.
[74] Müller (1789), 129.

harmony as the main goals of human existence.[75] Herder has been described as a historical writer who was critical of a linear-teleological understanding of history.[76] For Herder, progress nevertheless meant gradual perfection of humankind; he understood history as an education to humanity.[77] Geographical writers reflect, then, the variety of historical models conceptualised by German authors. They also reflect that several linear progress models were limited to the sciences and arts, as in the beginning of the eighteenth century.[78] Many of these authors, shared the overall goal of perfection of humanity (see chapters 6 and 7).[79]

The third criterion of classifying geographical knowledge was by scale and scope ('*Umfang*'). Authors who applied that criterion often differentiated between 'universal' and 'special' geographies. These terms did not necessarily indicate a differentiation between a mathematical (general) and a descriptive (special) tradition, they rather signified a difference in scale and scope – in the same vein as 'special' geography was a common genre in Britain.[80] The term 'universal' most often referred to the study of the entire earth; 'special' referred to detailed descriptions of parts of the earth, as for chorography (descriptions of countries or regions) and topography (description of local places). Also the term 'general' ('*allgemeine*') geography was in discussion. It indicated what could be said about the earth "as a whole and in general" which some authors considered part of universal geography. Gaspari (1797) explained:

> The difference in **scope** [*Umfang*] constitutes the third classificatory criterion. Following its actual meaning, geography [*Geographie*] concerns the entire earth. However, also the description of individual parts of the earth has been given this name [geography]. That is why one needs to differentiate between **universal** and **special** geography; the former comprises the whole earth, the latter only certain larger or smaller parts of the earth. There should however be no misunderstanding when speaking of geography proper. What can be said about the earth in its entirety and in general is called general [*allgemeine*] geography; this is contrasted with the examination of individual parts of the earth. General

[75] Müller (1789), 148, for his reference to Herder see p. 144.
[76] See Prüfer (2002), 183, 195; Bödeker *et al*. (1986), 365; and Muhlack (1991), 141.
[77] Prüfer (2002), 202. Friedrich Schiller was another scholar who combined linear and cyclical elements of progress; for him, progress was helical (see Prüfer (2002), 205).
[78] Prüfer (2002), 187.
[79] Prüfer (2002), 187-189.
[80] See Mayhew (2001) on the two traditions in Britain. See Sitwell (1993) on 'special' geography.

> geography should not be confused with universal geography of which general geography is a part of.[81]

The understanding of these terms differed between German eighteenth-century geographers. Whilst Gaspari (1797) emphasised a clear differentiation between universal and general [*allgemeine*] geography, others promoted a different understanding. Fabri (1808) attributed the same meaning to "universal" and "general [*allgemeine*]" geography. He distinguished between material ("*Materialien*") and form ("*Form*"). The former comprised universal and particular geographies, the latter general and special geographies: The first included "universal or general [*allgemeine*] geographies which address all kinds of geographical contents of our planet, 2) particular geographies, when they relate to a) individual spatial parts of our earth, or b) certain individual objects".[82] The second way of differentiating by scope – form – included, according to Fabri, "1) General [*generelle*] geographies which deliver only a general outline of a country and its people based on its characteristic features, 2) Special [geographies] when individual spatial parts with their individual geographical contents are portrayed with appropriate completeness".[83] Based on these distinctions, Fabri suggested four different types of geographies by scope: "A) *Generelle*-universal geographies, or formal-general geographies, B) Special-universal geographies, or material-general [geographies], C) *Generelle*-partial geographies, or formal-particular [geographies], and D) Special-partial geographies or material-particular [geographies]".[84] Fabri did not specify these categories any further with exception of the last one which he stated more precisely as "choreographies, topographies, and geographical writings which relate to individual objects and their difference in synchronistic relation."[85]

Whilst some scholars earlier in the century, such as Hübner (1755), used scope as a main classificatory criterion (for Hübner a differentiation between "universal" and

[81] Gaspari (1797), 5, emphasis in original.
[82] Fabri (1808), 339.
[83] Fabri (1808), 339. Fabri (1808) makes a difference between "*universellen*" and "*generellen*" geographies for which there is only one English equivalent: "general". I therefore keep the original German term respectively in squared brackets.
[84] Fabri (1808), 339-340.
[85] Fabri (1808), 340. Fabri (1808) used the term synchronistic to refer to spatial relations (as opposed to temporal relations).

"particular" geography), this third categorising was not used and elaborated on by all geographical authors.[86] These indicated variations in applying and understanding the criterion of 'scope' reflect the differences amongst eighteenth-century German scholars when ordering and classifying geography.

These variations become even more apparent when regarding the modes of further subdividing practices within the three indicated criteria. The practice of classifying geographical knowledge by the three common criteria 'object of study,' 'time,' and 'scale/scope' could be further divided within these categories. The methods of further subdivision were many. Fabri (1808) summarised some common modes within physical and political geography. Each of these categories could have at least two and often more further subdivisions.

Aiming to offer even more detailed and specialised descriptions, some authors divided physical geography further into "*Geistik*," hydroistic geography, atmospheric and meteorological geography [*Aeroistik*], "pyroistische Geographie" concerning volcanoes and earthquakes, electrical geography, magnetic geography, material geography (zoological, phytological [botanic], and mineralogical geography), and anthropology.[87] Elsewhere, Fabri (1800) added "products and humans" and creation story of our earth".[88] Concerning political geography, Fabri (1808) mentioned several possible subdivisions, such as topological geography, ethnology, and politics. The first two were further classified multiple times. On the next sub-level, topology was comprised of mathematical, physical, and political topology, ethnology of physical, anthropological and political ethnology.[89] The multiple levels of classifying knowledge

[86] For geography in eighteenth-century England, see Mayhew (1998a), for Britain and particularly Scotland see Withers (1996b), and for Britain see Withers and Mayhew (2002). For a discussion of these four terms please see section three below.
[87] See overview in Fabri (1808), 136-159. On "*pyroistische Geographie*" see page 142; there is no English equivalent for Fabri's term. He describes it as concerning volcanoes, volcanic products, and earthquakes. I further have not found an English equivalent for this old German term "*Geistik*". Fabri differentiated "*Geistik*" from geology and geognosis; the latter two were not considered part of geography. Geology concerned the "causes and forces" during "the creation of the earth"; and he described geognosis as science [*Kunde*] elaborating on probable and assumed geological principles (as opposed to observed ones, which Fabri considered the subject of "*Geisitk*"). He understood "*Geistik*" as "elaborations on the truly observed stated of the crust of the earth and its parts" (Fabri (1800), preface, vii).
[88] Fabri (1800), 5.
[89] See Fabri (1808), 168-185.

that were considered part of geography show a certain degree of thematic overlaps between subfields. Mathematical and physical boundaries, for example, could be discussed in "mathematical geography" as well as on a lower hierarchical level in political geography. Some scholars joined also these classificatory criteria together by, for example, considering thematic and time aspects on one ordering level. Johann Wilhelm Matthias Henning divided geography into five main aspects: "(1) mathematical geography," "(2) orientation on the whole earth," "(3) physical geography or 'Nature-*Erdkunde*,'" "(4) political geography or 'state science,'" and "(5) historical geography or historical *Erdkunde*".[90]

These different classificatory methods illustrate variations and a lack of coherence regarding the interpretative meaning of geography. They further show possible overlaps and confusion between the multiple categorical levels. They demonstrate almost an obsession with ordering and allocating every piece of geographical information. The examples indicate inconsistencies and variability regarding the attribution of meaning to particular terms. The variability regarding the details of the particular terminological understanding and the sub-classifications demonstrate both an absence of uniformity, and flexibility in ordering geographical knowledge. The nuances in classifying geography appear even more distinct when considering those scholars who used different methods of subdividing geography. The three illustrated modes of distinguishing geographical knowledge – by subject matter, time, and scope – were not applied by all authors, nor had they dominated the geographical discourse earlier in the century.

Alternative ways of ordering geographical knowledge were used by a few authors. Hager (1755a, 1755b) differentiated between mathematical and what might be called "textual" or prosaic descriptions. Since Hager (1755a, 1755b) saw geography as a mathematical science, he regarded mathematical knowledge about the earth as inherent to geography and considered textual elements and subdivision as external and introduced to geography from other sciences. For Hager, descriptions from a natural, moral, and political perspective (besides the mathematical one) were a result of thematic

[90] Henning (1812), 7-9.

incorporations into geography. Despite his disapproval of such inclusions, Hager accepted them, and proceeded to differentiate between general ("*allgemeine*"), special (*besondere*), and very special ("*ganz besondere*") geography.[91] As his successors, he pointed to the description by three different time periods.

In 1761, Gatterer explained that geography was commonly divided into mathematical and political geography, physical or natural geography being sometimes considered an additional part of geography.

> Geography or *Erdbeschreibung* [earth description] is a science of the earth; it is divided into mathematical and political geography. The former is the science of the shape and size of the earth and its characteristics, the latter is a science or established description of the countries and states of the earth and its inhabitants. Sometimes also the natural history of a country is understood as special part of geography; this is then called physical or natural geography.[92]

Fourteen years later, in his compendium *Outline of Geography* (*Abriß der Geographie*) (1775 [1778]), Gatterer offered a new and alternative fourfold method of categorising geographical knowledge.[93] It was a more complex way of classifying knowledge and a distinction between four "main categories or sciences" within which the usual classification criteria, subject matter and time were applied:

> The entire description of the Earth, with and without respect to the division in ancient, middle and new [periods], can conveniently be brought, I think, under four main categories or sciences: (1) the study of boundaries [*Gränzkunde* (*Horosmographia*)], (2) the study of countries or regions [*Länderkunde* (*Chorographia*)], (3) the study of states [*Staatenkunde* (*Poleographia* or *geographica Politice*)], and (4) the study of people and peoples [*Menschen*- und *Völkerkunde* (*Anthropographia* and *Ethnographia*)].[94]

---

[91] In contrast to later geographers, Hager (1755a) also still added Latin expressions and spoke of "*Geographiam universalem*, *specialiem* und *specilissimam*" and with respect to time, he added, "*Geographia antiqua*, *media und nova*" (Hager (1755a), 8).

[92] Gatterer (1761), 6.

[93] Gatterer's (1775 [1778]) *Outline of Geography* was an incomplete body of work, in which only the first two parts were written out, the last two parts were outlined in an introductory table of contents.

[94] Gatterer (1775), 4-5. My translation is partly based on Vermeulen's (2006, 130) but with modifications: Vermeulen (2006), 130, has translated "Gränzkunde" as "the study of boundaries" or "physical geography," "*Länderkunde*" as "the study of countries" or "geography proper," "*Staatenkunde*" as "the study of states" or "political geography," and "*Menschen-und Völkerkunde*" as "the study of people and peoples" or "anthropology" and "ethnology". Bowen (1981) who incorrectly misses out the first part ("*Gränzkunde*"), has used the terms "description of countries, grouped according to natural divisions," "political geography," and "the study of peoples" for the last three categories. Whilst I agree with Vermeulen's (2006) translations in most parts, I prefer not to translate "*Gränzkunde*" only as "physical

Gatterer (1775) did not reject the common classification mode of mathematical, physical, and political geography, nor the division by time, but he used them on a secondary classificatory level to further sub-divide his four primary categories. He divided his first main category "*Gränzkunde*" (the study of boundaries) into "*mathematische*" [mathematical] and "*physische* [physical] *Gränzkunde*". The second category *Länderkunde* was split into "*neue*" (new) and "*alte*" (old) *Länderkunde*, whilst he used three time periods to subdivide *Staatenkunde* into old, middle, and new *Staatenkunde*. For his fourth and final part *Menschen- und Völkerkunde*, Gatterer used an even more diverse and mixed classification, and outlined seven chapters: (1) "Geography of human bodies, by shape and colour," (2) "Geography of languages," (3) "Geography of religions," (4) "Geography of products," (5) "Geography of culture" which he divided by time into "in the ancient times," "in the middle ages," "the contemporary period". Each of these time categories was divided into "not enlightened peoples," "half enlightened peoples," "fully enlightened peoples;" (6) "geography of trade," and (7) "Geography of geography" ("geography of geography (as history of history): or depiction of the scope of geography [*Erdkunde*] for every noteworthy time period".[95] The last three subparts (5-7) were again divided by the three time periods "old," "middle," and "new" geography.

Gatterer (1775) finally stressed a geographical understanding of the terms used: "As we deal with geography here, it stands to reason that these four artificial terms are to be taken in their geographical meaning, not in their historical, political or statistical sense".[96] Besides the terminological variability, two main points are illustrated with Gattterer's (1775) example. First, it reinforces – in a Foucauldian way – the most

---

geography" as Gatterer discussed boundaries not only in physical geographical terms but also in mathematical ones. Gatterer divided "*Gränzkunde*" into "*mathematische* [mathematical] *Gränzkunde*" and "*physische* [physical] *Gränzkunde*". I neither like to use the expression "geography proper" for "*Länderkunde*" since Gatterer did not use these words. Gatterer's understanding of "*Länderkunde*" also comprised more than only "political geography", as Bowen (1981, 130) called it, since Gatterer discussed political boundaries and mathematical positions and natural classifications arranged in chronological order, divided into "*neue* [new] *Länderkunde*" and "*alte* [old] *Länderkunde*". Instead, Gatterer called "*Staatenkunde*" also "geographica politice" (see Gatterer (1775 [1778]), viii-xxxvi, and 4-5).

[95] Gatterer (1775), xxxiv.

[96] Gatterer (1775), 4-5.

common way of classifying geographical knowledge in eighteenth-century Germany – the thematic triad of mathematical, physical, and political geography and the temporal triad of old, middle, and new geography. Second, it demonstrates the flexibility and lack of a fixed standard of knowledge classification. The German geographical and scientific ordering practices were dynamic and not standardised.[97]

Certain geographical sub-fields emerged that did not fit the overall classificatory scheme. One such field concerned comparative geography which was a comparison of geographical knowledge of the past (old and middle geography) with the contemporary state of knowledge (called new or newest geography). Other peculiar subfields were present, such as biblical geography. Biblical geography addressed the geography of the 'Holy land' and considered biblical figures, such as Moses, as first geographers. Biblical geography also comprised the comparison of biblical 'facts' about the Holy Land with modern knowledge.[98] Another field concerned military geography. Canzler (1792) outlined a (theoretical) plan for military geography, and argued that geography ought to be a precursor of military geography. Canzler considered a correct order necessary in order to prevent chaos and to successfully accomplish the purpose of each discipline: "I consider general or common geography or *Erdkunde* as an absolutely essential precursor of military geography, as much as geography is a precursor to commercial geography."[99]

Some parts of geography evolved over time as distinct sciences within or even separate from geography, for example commercial geography, ethnography, and statistics. Franz (1788) considered commercial geography a new branch of political geography:

> A new branch of political *Erdbeschreibung* or statistics is commercial geography which studies the natural wealth or shortage of the countries and their products with respect to their quantity and quality, it further concerns the state of all the manufactories and factories, as well as domestic and foreign trade etc.[100]

[97] It has been argued before that Gatterer proposed this classificatory system in order to emancipate geography from history (see Beck (1973)). This argument shall be discussed in chapter 4 when elaborating on geography's position in the system of sciences.
[98] See Fabri (1808).
[99] Canzler (1792), 75-76.
[100] Franz (1788), xi.

Franz saw also ethnography evolving as a new field separate from *Länderkunde* (the study of regions and countries). "Ethnography (the study of peoples) or the description of the mores and customs of the different peoples on earth is increasingly studied, and is becoming separate from *Länderkunde*".[101] This observation by Franz (1788) might appear less novel given that Gatterer (1775) had already regarded ethnography, along with anthropology, as a distinct part of geography. Ethnography eventually became an independent science as much as commercial geography merged with cameralism and statistics.[102]

This first section has shown the variations in meaning regarding the classification of geographical knowledge. Two main things may be noted: geography had a "stable" definition – the description of the earth's surface.[103] The interpretation of that definition, the classification of geography's knowledge, however, varied, which resulted in different textual meanings of geography. The following section addresses geography's 'outer boundaries'. It begins by addressing geography's position in the system of sciences and the negotiation of its boundaries with related sciences, especially statistics and history. The next section shows that as much as geography's 'inner boundaries' were sometimes defined differently by different authors, neither were geography's 'outer boundaries' always clearly marked.

## Geography's place in the system of sciences

Geography's position in the system of sciences was part of German eighteenth-century scientific and geographical discourse.

> The geographer and friend of geography cannot gain the knowledge [*Kenntnisse*] – which – taken together, revised, ordered, and annotated – constitutes geography as a science – from own speculation and researching, not from own experiences and thinking; because geography is a mnemonic science, a sister of history, which, as that one, obtains its brilliance only with the torch of philosophy, and as in the case of that one [history], its sources are narrations and

[101] Franz (1788), preface, xii.
[102] See Vermeulen (2006) on ethnography and cameralism.
[103] Mayhew (2001), 388.

> reports of others, which it [geography] examines critically, compares, compiles, extracts the best elements, and places them systematically.[104]

This quote indicates German reflections on the epistemology of geography and geography's relationship with other sciences. By categorising geographical and scientific knowledge based on their mutual benefit to society, eighteenth-century German scholars were concerned with drawing boundaries between the sciences and with identifying differences between geography and its related sciences – that is, with demarcating geography's external boundaries. Particularly the boundaries between political geography (often also called "*Länderkunde*") and statistics (*Statistik* or *Staatswissenschaft*) and those between geography and history were often discussed and negotiated.

This section argues that geography's role and place in the system of sciences was not fixed, but dynamic and negotiated. Three main aspects illustrate this point: first, different positions in categorising geography as a mathematical and a historical science, second, changes regarding geography's external (outer) boundaries and, third, suggestions about the subordinate position of geography in relation to other sciences. The section is divided into three parts. The first begins with an illustration of geography's relative position in the system of sciences: differences in understanding geography as a predominantly mathematical or as a historical science. The second part demonstrates geography's changing relationship with other sciences by using the example of statistics and history. The third part finally elaborates on several late eighteenth-century scholars' claims for geography as a science in its own right.

### *Geography's character and relative position in the system of the sciences*

Several German authors of geographical and encyclopaedic print were concerned with categorising geographical and scientific knowledge. Geography was grouped either with mathematical or historical sciences. Whilst geography was considered a mathematical science by several German writers at the beginning of the century, most authors characterised it as a historical science in the second half of the century. Those scholars

[104] Ehrmann (1809), 260; Hofmayr (1810), 5.

who considered geography a mathematical science, such as Hager (1755a, 1755b), not only described the earth in mathematical terms, but also regarded all other aspects as borrowed from other sciences. Hager regarded geography's mathematical nature as enriched by natural, moral, and political sciences as well as by history:

> Geography is actually a mathematical science about the figure, position, breadth, width, size, and disposition of the earth and its characteristics. Yet, one sets this science further boundaries by also teaching all kinds of useful insights from physical and moral sciences [*Natur- und Sittenlehre*], from politics and from history books.[105]

Whilst some scholars regarded geography as a mathematical science, most authors publishing in the second half of the century considered it an empirical – often historical – science: as 'one eye' of history, as it was the case in other European countries.[106] Geography was increasingly understood as an empirical science, a science that offered a systematisation of knowledge that combined "empirical facts of one's own and others' experience" to a "systematised unity" based on a "leading idea (following a principle)".[107] Most German scholars and geographers who considered geography an empirical science – an "*Erfahrungswissenschaft*" (as Fabri had it) – saw it to be concerned with the description of experiences over space, that is, as targeting spatial relations as opposed to temporal relations.[108] 'Historical sciences' entailed all sciences that were based on experience, in contrast to mathematical and speculative or philosophical sciences that were based on reflection and speculation. When Büsching shifted the emphasis away from mathematical to political geography in his *Neue Erdbeschreibung* in such a way that one scholar has spoken of a propaedeutic reduction of mathematical and physical geography to political geography, the understanding of geography as a historical science became increasingly established and accepted amongst eighteenth-century German scholars.[109]

---

[105] Hager (1755a), 7-8, same in 1755b.
[106] For several eighteenth-century European contexts, especially Britain and France, it has been shown that geography was considered the 'left eye of history,' chronology understood as the other eye (see Mayhew (1998b)), 758.
[107] Fabri (1808), 51.
[108] Fabri (1808), 51.
[109] See Tang (2008), 31.

Gaspari (1797) stressed the empirical character of geography and classified it as a historical science:

> *Erdbeschreibung* is a science; because the truths it teaches are closely connected, and it [geography] does not only tolerate but even require a systematic approach. It is a historical science; because it solely rests on experience; the most pervasive ingenuity, the most ardent imagination cannot add anything and one should not dare to fill a gap with probabilities which would not be true geography".[110]

Several authors considered geography a historical science – in the sense that it was regarded as a *textual* empirical science. History in a wider sense was understood as "an empirical science [*Erfahrungswissenschaft*] which is called *history*, and *historical*, when it concerns facts of human experience in temporal and spatial relations."[111] Fabri (1808) accordingly differentiated between "homochronistic" and "heterochronistic" historical sciences. Homochronistic historical sciences were understood as those fields of study that presented empirical facts of the earth across space, whereas heterochronistic ones concerned historical depictions over time. Geography was considered a "homochronistic" historical science, since it concerned the study and (re)presentation – description – of facts in spatial relations. Fabri (1808) argued that geography shared that category together with ethnography and statistics:

> "§. 30. Division of the homochronistic sciences.
> All objects – which according to our previous discussion [...] in relation to our earth and the rational beings of our species – can be incorporated in the group of historical studies, and can in a homochronistic regard be divided into three main fields of study, that is:
>
> a) Geography or earth description [*Erdbeschreibung*]
> b) Ethnography, or the study of peoples [*Völkerkunde*]
> c) Statistics, or the study of states [*Staatenkunde*]
>
> Each of these 3 twinned sciences is again made of several subdivisions and particularities.[112]

Fabri stated even more explicitly, "*Geographie* is a historical-homochronistic science. All content of geography is based on facts of human experience in spatial relations;

[110] Gaspari (1797), 2.
[111] Fabri (1808), 51.
[112] Fabri (1808), 121.

these facts cannot be gained by mental processes, nor through reflection or speculation."[113]

In a similar vein to Fabri, but focusing on the methods of the different historical sciences, Wilhelm Traugott Krug, argued in his encyclopaedia *Attempt at a systematic encyclopaedia of the sciences* (*Versuch einer systematischen Encyclopädie der Wissenschaften*) (1796) for a differentiation between "describing and narrating historical sciences". The former concerned the depiction of phenomena – gained "through immediate perception and sensation of the (targeted) objects of experience" – in space – and the latter addressed depictions in and across time.[114] The method of delineation attributed to geography and to other homochronisitc sciences concerned description ("*Beschreibung*"), whilst that of heterochronistic sciences, such as chronology, was narration ("*Erzählung*").[115] The theologian and Kantian Carl Christian Erhard Schmid distinguished in his *General Encyclopaedia of Sciences and Methodology* (*Allgemeine Encyclopädie der Wissenschaften und Methodologie*) (1810) between sciences "according to a subjective-objective plan". As Krug, Schmid (1810) differentiated between "describing historical disciplines" ("*beschreibende historische Disziplinen*") and "narrating historical disciplines" ("*erzählende historische Disziplien*").[116] Krug's (1796) and Schmid's (1810) distinctions of history resembled Fabri's (1808) distinction between homo- and heterochronistic historical sciences. In contrast to Fabri, however, Krug and Schmid stressed the different methods that distinguished the two groups of historical studies: "describing" characterised as geographical – spatial – depiction and "narrating" indicating a temporal illustration.

In contrast to geographers such as Hager and Fabri who allocated geography to one group of sciences, other authors classified parts of geography as spread across different groups of sciences. Krug (1796), for example, did not class all parts of geography as historical sciences – only political and physical geography. Mathematical geography was, by contrast, regarded as a science belonging to the astronomical

[113] Fabri (1808), 124, emphasis in original.
[114] Krug (1796), 46.
[115] See Krug (1796) and Fabri (1808).
[116] Schmid (1810), 160-162.

sciences which formed part of applied mathematics.[117] Johann Georg Büsch (1728-1800), a Hamburg pedagogue and journalist who was also co-author of some geographical books and essays, expressed an understanding of geography as divided into a textual and a mathematical tradition. Büsch, before Krug, differentiated between geography overall which he considered an historical science and the production of maps and globes which he considered an "art" and a "mathematical science" part of the "astronomical disciplines" in his two encyclopaedias the *Encyclopaedia of historical, philosophical and methodological sciences mostly after Reimarius* and his *Encyclopaedia of mathematical sciences* (both 1775).[118] Büsch still applied the geographical divide between a textual and a mathematical tradition – a dyad also reflected in his overall classification of the sciences into historical, philosophical, and methodological sciences, and one on mathematical sciences.[119]

Several other writers expressed an understanding of geography as a science whose subparts – most often mathematical, physical, and political geography – were spread across different categories of sciences. Whilst Büsch (1775a) and Krug (1796) had grouped geography's subpart into two different scientific categories, other authors applied a threefold distinction. Johann Joachim Eschenburg, literary historian and professor at the college Collegium Carolinum in Braunschweig published a *Textbook of the study of sciences* (*Lehrbuch der Wissenschaftskunde*) (1792).[120] Eschenburg divided geography into physical, mathematical, and political geography and while he described geography as a science "inseparable from history", he classified each of the three branches into different groups of sciences: physical geography (which he also equated with geology) and physical *Erdkunde* into what he termed the natural sciences ("*Naturwissenschaften*"), mathematical geography as part of mathematical sciences, and political geography as belonging to the historical sciences.[121]

[117] See Krug (1796), 110 and 127 respectively.
[118] Büsch (1775a), 141.
[119] See Büsch (1775a).
[120] Later editions in 1800 and 1809.
[121] See Eschenburg (1800), pages 80, 215, 216, 165, 80 respectively.

Whilst Schmid (1810) described geography as an empirical science, he did not define all geography as part of the describing historical sciences. Instead, Schmid applied the threefold distinction of mathematical, physical, and political geography, and classed each of the three geographical subparts into a different group of sciences. Schmid considered political geography and medical geography (in natural and political respect) as part of the "describing historical disciplines". In contrast to Büsch (1775) and Krug (1796), Schmid (1810) not only regarded mathematical geography as belonging to another type of science, but he also grouped physical geography into another category. Schmid described physical geography as belonging to physiography ("*Naturbeschreibung*") which he considered part of "natural history sciences" ("*Naturhistorische Wissenschaften*"). Mathematical geography was even mentioned twice by Schmid: as "mathematical geography [Geography]" and as "mathematical *Erdkunde*" under "physiography" and under "applied mathematics" part of mathematical sciences.[122]

Whilst Büsch's (1775) and Krug's (1796) twofold allocation of geography's three subparts to historical and mathematical sciences expressed an understanding of geography as divided into a textual and a mathematical tradition, Eschenburg's (1792, 1800, 1808) and Schmid's (1808) threefold allocation demonstrated different understandings: on the one hand, they illustrated a change in the system of science more generally – the emergence of natural sciences as scientific genre later institutionalised in course of the nineteenth century.[123] Büsch's understanding of the historical sciences paved the way for the later separation of historical and natural sciences. Büsch's division of history into, on the one hand, natural history and, on the other hand, political and ecclesiastical history implicated a shift between the humanities ("*Geisteswissenschaften*") and the natural sciences. His allocation of historical geography as belonging to the former and physical geography as part of the latter implied a threefold understanding of geography, and reflects the threefold division of geographical knowledge. Overall, these different allocations of geography and

[122] Schmid (1810), pages 160, 153, 103 respectively.
[123] See Müller (2008).

geographical knowledge demonstrate that also encyclopedists understood geography differently.

A few authors argued that geography acquired the status of a science only at the turn of the century. Liechtenstern (1801) claimed that geography – he used the term "*Erdkunde*" – reached scientific "maturity" only at the beginning of the nineteenth century. Only a wider enlightenment, the result of explorations, and inventions gave geography a scientific shape:

> Neither all the great and diverse advantages which *Erdkunde* brings out, nor its closest connection with the most useful sciences could promote any fast completion. [*Erdkunde*] could only obtain a somewhat scientific shape with the help of a greater dissemination of Enlightenment, of an immensely long series of inventions, discoveries, and observations. The beginning of its [*Erdkunde's*] scientific treatment was not long ago; even in this [the eighteenth] century it was more a physical-political fragment than a distinct science to which it matures only in these days.[124]

Liechtenstern seems to have been an exception. Most German scholars considered geography a science and reasoned that it emphasised the connection of different geographical "truths," that is, they highlighted the unity of different geographical aspects and the need to systematise these truths.[125]

The different classifications and groupings of geography and geographical knowledge indicate a lack of uniform understanding regarding its role in the system of science. The dominance of political geography from the middle of the century onwards led to an understanding of geography as a historical science – with geography's mathematical and physical part regarded as almost introductory and propaedeutic to geography's historical emphasis. The allocation of physical geography to the physical or natural sciences later in the century indicated another shift in understanding. This shift, however, also indicated changes in the systems of the sciences overall. The different classifications of geography were related to the purposes for which the sciences were systematised. The German philologist Johann Christoph Adelung argued: "Commonly, one combines all these aspects [of geography] in a lecture of earth description

[124] Liechtenstern (1801), 2.
[125] Liechtenstern (1810), 2.

[*Erdbeschreibung*] to observe every country from each of these perspectives. These aspects can only be separated for the purpose of this general lecture on this science here."[126] Adelung divided geography for the purpose of an encyclopaedic overview. In the introduction to his encyclopaedia, Eschenburg (1792, 1800, 1808) pointed to different criteria used to distinguish fields of knowledge, such as Witte's (1793) differentiation by utility of study, Adelung's (1778-1781) distinction between four human skills and activities: achieving ("*Erwerben*"); enjoying ("*Vergnügen*"); knowing ("*Erkennen*"); and governing ("*Regieren*"); and Schütz's encyclopaedic tables ("*Encyclopädische Tafeln*"). Human knowledge and sciences were not only grouped in different ways, the hierarchical organisation and positioning of the sciences and their subparts also differed between authors and over time. Utility was the predominant criterion, and many classificatory systems were – explicitly or implicitly – based on utility. Utility meant the respective science's or field of knowledge's benefit to humankind or other sciences. This variety of classificatory modes in which geography was set reflects that plurality in the ordering of the sciences more generally.[127]

***Geography's relations with statistics and history***

If it is the case that the boundaries and relations between geography and other sciences changed throughout the century, it is also true that fields of knowledge considered part of geography emerged as sciences in their own right during the century. Most notably this concerned the discipline of statistics – the science of the state, also called '*Staatswissenschaft*' or '*Statskunde*'. Whilst this realm of knowledge was first considered part of geography – particularly political geography or '*Länderkunde*'. Some German geographers began to focus strongly on '*Staatsgeographie*' (state geography) during the second third of the eighteenth century. As statistics was concerned with the state, it received increasing attention by students and scholars. Later on, statistics emerged as a science in its own right, and established itself as a university discipline.[128]

[126] Adelung (1781, 1789), 11.
[127] See Witte (1793) and Eschenburg (1792).
[128] Bödeker (2001).

Geography's relationship with statistics, therefore, became of increasing importance to geographers towards the end of the century.

Liechtenstern (1801) explained the genesis of statistics with explicit reference to the relationship between political and scientific interest: "When looking at the reasons for its emergence, we come to know statistics [*Statistik*] as a means to satisfy the needs of politics."[129] Some scholars have argued that eighteenth-century German states faced a necessity for a science of the state – a '*Staatswissenschaft*' – due to its particular political construction and fragmentation.[130] The increasing demand for state officials resulted in the creation of a university discipline that could pass on knowledge of the state which had previously only been circulated within the nobility but now required the audience of a wider educated public in order to secure the formation of future civil servants. A codification and systematisation of such knowledge finally triggered the establishment of *Staatswissenschaft* which became a popular science in the German states during the eighteenth century.[131]

German scientists perceived '*Staatswissenschaft*' as a particular German phenomenon and used it to attract foreign students for German education.[132] '*Staatswissenschaft*' was soon also called '*Statistics*' and referred to a qualitative description of the state. Whilst the creation of the science statistics might have been a particularly German phenomenon during the eighteenth century, the connection between sciences and state interest was also pronounced in other European states – especially concerning political and mathematical geography in Britain and in France.[133]

The creation of *Statistik* resulted in conflicts over content authority and boundaries between statistics and geography.[134] Plewe (1986) has argued that the only clear distinction was made over spatial territory, meaning, all parts of statistics focused

[129] Liechtenstern (1801), 3.
[130] See Plewe (1986), 31-32.
[131] See Plewe (1986), 213.
[132] See Feuerstein-Herz (2004) and her elaboration on Zimmermann's intention to attract British students for German universities and colleges.
[133] See Mayhew (2000, 2004) for Britain. See Heffernan (1994, 1999) and Godlweska (1999) for France. For the relationship between geography, empire, and power, see Said (1978, 1990), Godlewska and Smith (1994), Edney (1997), and Driver (2001).
[134] For reasons of practicality, I will use the term 'statistics' in this chapter when referring to '*Staatswissenschaft*' or '*Staatenkunde*' or '*Statistik*'.

on Europe, and all other parts of the world belonged to geography. I want to suggest that this distinction did not hold for all scholars. Tang (2008) has pointed to the geographer Gatterer who published his *Ideal of general world statistics* (*Ideal einer allgemeinen Weltstatistik*) (1773) in which Gatterer aimed at shifting statistics' focus from the European states to all known countries in the world. The conflict between geography and statistics was, hence, not solved by allocating different spatial realms between the two sciences. Canzler (1790) stressed the importance of demarcating geography from statistics:

> Note. Perhaps this is the most appropriate place to indicate the boundaries at which geography [*Erdkunde*] and *Statenkunde* [science of the state] or statistics [*Statistik*] are differentiated, and to delineate what belongs to the [area of] the former and what belongs to the latter. The last result of all this will meanwhile probably be: geography [*Erdkunde*] is the foundation and preparation for the science of the state [*Statenkunde*], and [geography] can even be applied in the case of countries where the former drops out almost entirely.[135]

The relationship and increasing 'competition' between geography and statistics was so not understood elsewhere. In 1796, the Jena and later Oldenburg-based professor for philosophy and school teacher Adam Christian Gaspari still regarded statistics as part of political geography (especially the study of the peoples [*Völkerkunde*]). He understood statistics as "the other main part of political geography".[136] A year later, he pointed to a distinction between statistics and geography, yet did not draw a clear boundary: "Statistics just because it is now treated as a separate science cannot be abandoned out of geography, at least not out of a compendium of the same. The boundaries between these two sciences are anyway not yet clearly demarcated, and their areas overlap in manifold ways in all systems of the same [of geography]".[137] Two decades, later in the second edition of his work, Gaspari published exactly the same comment and described geography as a "companion" to statistics and history, without giving any further detail: "Statistics is a static reflection of the powers of state of a country in a given age, and

[135] Canzler (1790), x.
[136] Gaspari (1796), 47.
[137] Gaspari (1797), 12.

history [is] continuing statistics, in that way it [history] becomes pragmatic. Geography is the leader and companion of both."[138]

The demarcations between geography and statistics were often not drawn clearly or were left ambiguous, as Liechtenstern (1801) bemoaned at the turn of the century:

> General geography [*Erdkunde*] has gained greater perfection especially by German talents and through German diligence; during the second half of the eighteenth century some Germans – especially Achenwall – tried to transform one main part of the same [i.e., political geography] into an own science under the name statistics [*Statistik*]; even though this new scientific branch has since obtained an excellent formation, no one has fully defined the term, nor drawn the boundary line by which this science [statistics] is separated from the other [geography] which gave the reason to its emergence. […] The occasion of its emergence meanwhile clearly shows its purpose and its difference from its mother science geography [*Erdkunde*].[139]

Liechtenstern (1801) saw a major difference between geography and statistics in that geography was understood as a historical science, whereas statistics combined knowledge derived from a number of historical and philosophical sciences:

> Geography [*Erdkunde*] is a historical science concerning the condition and state of the earth and its inhabitants, because it solely rests on experience, and its materials are observations; these are indeed also the materials of statistics but in combination with principles, tenets, and hypotheses which are partly taken from very different sciences and therefore constitute a sum of related truths which are matters of historical as well as philosophical cognition.[140]

Liechtenstern (1801) noted too that statistics used knowledge about the state in order to develop appropriate modes and theories of governance.

> It [statistics] herein differs substantially from geography: the latter describes states and countries in their manifold conditions, statistics in contrast uses their [the countries'] state to derive its essential results for best governing the countries and [statistics] appropriately applies the principles of nature and the science of sizes [mathematics[141]], agriculture, technology, trade, history, and state economy including all the respective auxiliary sciences to a particular

[138] Gaspari *et al*. (1819), 10.
[139] Liechtenstern (1801), 2-3.
[140] Liechtenstern (1801), 3.
[141] The German term '*Größenlehre*,' literally translated as the study or science of sizes, referred to mathematics or parts of it (see, for example, Zedler (1732-1754)).

> location. Almost all sciences are in that way closely related to statistics; they are either the reason or the consequence of its [statistics'] application.[142]

The different motivations for drawing or omitting clear lines between geography and statistics were not only related to different classificatory and ordering strategies but were also linked to arguments for establishing geography as a university science. Canzler most explicitly emphasised the need of a separation line between geography and statistics for the institutionalisation of geography in both of his pleas from 1790 and 1795: "Fourth, besides presenting the different materials, a system of geography etc. also needs to select those materials carefully in relation by carefully drawing a line of separation between geography and *Statenkunde* or statistics, and it needs to find a suitable style.[143]

Whilst the 'conflict' between geography and statistics was mainly one that concerned the demarcation of clear boundaries and a rivalry over content hegemony, the debates on geography's relation to history were often related to the hierarchical nature of their relationship. Geography was long-time considered as auxiliary to history. It was not only seen as one eye of history but subordinate and auxiliary to it. Gatterer's *Compendium of Universal History* (*Handbuche der Universalgeschichte*) (1761) and Schönemann's (1799) *Outline of an encyclopaedia of the historical sciences* (*Grundriß einer Encyclopädie der historischen Wissenschaften*) are only examples of historical and encyclopaedic works in which geography was listed as "historical auxiliary science" ("*historische Hülfswissenschaft*") besides chronology, genealogy, numismatics, diplomatic, heraldry, and occasionally also epigraphs, knowledge of languages, logic, and critique.[144] Some scholars considered only parts of geography – most often political and occasionally also physical geography – as auxiliary sciences to history.[145]

During the last third of the century, several authors stressed that geography should be regarded as a science that had its own objectives, doctrines ('*Lehren*'), and

[142] Liechtenstern (1801), 4-5.
[143] Canzler (1790), preface, iii-x; see also Canzer (1795), 3-13.
[144] See also Büsch (1775).
[145] See Büsch (1775).

methods.[146] Distinguishing geography from other sciences not only became an eighteenth-century practice, but also a way of defining geography as autonomous and not auxiliary to other sciences. The subaltern position of geography in relation to other sciences, especially history and theology, was, therefore, challenged and negotiated in the last third and especially towards the end of the eighteenth century. Johann Christoph Gatterer's (1775) alternative classification of geographical knowledge into the study of boundaries, countries, states and peoples, which others, such as Adelung (1781, 1789), built on, has been interpreted as first move to make geography independent from history. Contrary to most of his contemporaries, Gatterer (1775) used the classification into old, middle, and modern geography only on a subordinate level, and not as a main ordering criterion.[147]

Gatterer aimed at liberating geography from its subordinate position with respect to history.[148] Kühn (1939) suggested that the historian Gatterer's renewed geographical readings and his (1775) *Outline of Geography* marked the beginning of a new geographical epoch in Göttingen – by offering new thematic directions – especially for physical geography. Gatterer used his alternative classification of geographical knowledge and envisioned geography as an "independent" science. My evidence suggests that several later eighteenth-century scholars argued that geography ought not to be subordinate to history, nor to any other historical or empirical science. Johann Gottfried Herder (1744-1833), for example, who had listened to Kant's lectures on geography at the University of Königsberg, placed geography in an equal position to history.[149] In his speech 'About the convenience, utility, and necessity of geography'[150] given at a grammar school ('*Gymnasium*') in Weimar in 1784, Herder argued that geography was "the base of and an auxiliary science [*Hülfswissenschaft*] to all studies which are loved and appreciated most in our century."[151] As a historical science, he

[146] See, for example, Kant in Büttner (1998).
[147] See Lutz (1980).
[148] Büttner (1998).
[149] See, for example, Naraon (2006); Zammito (2002); Günzel (2004); Church (2011).
[150] '*Von der Annehmlichkeit, Nützlichkeit und Nothwendigkeit der Geographie*, 1784' translated as 'On the charm, usefulness, and need for the study of geography' by Tang (2008), 48.
[151] Herder (1784), 61-62.

claimed that geography enriched all historical studies: "And in particular everyone knows that geography serves first of all history and namely every history – political and scholarly history, church and state history; yes, I can say that history without geography and chronology becomes a hollow building. What is the use, if the young people [young students to which Herder spoke] know what has happened without knowing where it happened?"[152]

At the same time, Herder argued that geography was the foundation of history and vice versa: "Short, geography is the basis of history and history is nothing more than geography of times and peoples set in motion. – Who practices one without the other, will not understand either of the two, and who despises both should not live on but under the earth [the earth's surface] like a mole."[153] Herder's concerns resemble Kant's who was his former teacher in Königsberg. Kant stressed, "But what was there first, history or geography? The latter is the foundation of the former, because events themselves must refer to something. […] Geography is, thus, the substrate."[154]

Besides elaborating on geography's and history's mutual benefits, several scholars justified geography's significance and equal position with respect to other sciences by stressing geography's utility for human and civil development and progress. Herder pointed to the combination of both usefulness and joy deriving from the study of geography. He argued that geography was "so rich in useful and pleasant knowledge, but at the same time also so necessary for our time and so appropriate for the years of the youth."[155] These numerous statements were attempts to 'free' geography from its subordinate position towards other sciences – particularly history.

### *Geography – a science in its own right*

The debates about geography's relationship with other sciences also resulted perhaps inevitably in arguments for geography as a science in its own right. Gaspari (1797) argued that geography was not only a science auxiliary to history, as often claimed, but

[152] Herder (1784), 67.
[153] Herder (1784), 68. See similar positions in Müller (1789), 126-127, fn*, and Henning (1812), 9.
[154] Kant (1839 [1802]), 429.
[155] Herder (1784), 61.

an "own, independent science" since geography was studied for its own sake and not (only) for better understanding other sciences:

> So far, it [geography] has only been regarded as one of the auxiliary sciences of history. It [geography] is, however, an *own, independent science*, which is connected to the entire realm of literature and is not only studied in order to understand another science more easily and better but is studied for its own sake. It serves as foundation to history which is only a novel without geography; it [geography] in turn receives several appreciable explanations. It is the sister of history, not its maid.[156]

Fabri (1808) stressed again geography's scientific independence and sovereignty when he included a whole paragraph entitled "*IV. Geography is an independent science*" in his *Encyclopaedia of historical main sciences and their auxiliary sciences*. Fabri elaborated on geography's independence from statistics and history arguing, as Gaspari, that geography was a science that was studied to understand its "own tenets [doctrines]" and not to easy the study of other sciences.

> IV. *Geography is an independent science*.
> Quite commonly, geography is listed as a subaltern auxiliary science [*Hülfswissenschaft*] of statistics and of all heterochronistic historical sciences [sciences studying objects in sequence of time] [...]. Geography is, however, [...] a *sovereign independent science* which is not only studied in order to make other scientific contents easier and more satisfactory accessible, but for its own peculiar teachings. Geography serves, indeed, all historical heterochronisitic contents, including statistics. It has therefore since the old times been called the one eye of history (in a more narrow sense), as much as the science of [arranging events by] time, *chronology*, [has been called] *the other eye of history*. Incidentally, geography needs – regardless of its autonomous relationship (similar to other independent scientific entities) – manifold support from various contents of human knowledge, from the realm of mathematical and philosophical as well as physical and other sciences.[157]

Some authors of encyclopaedic works expressed an understanding of an equal or even autonomous position of geography. Adelung's (1781, 1789) and Schütz's classifications were examples of an understanding of geography as independent science holding an emancipated place in relation to other sciences.[158] Adelung (1781, 1789) had

[156] Gaspari (1797), 1, emphasis in original.
[157] Fabri (1808), 125-126.
[158] See Ersch (1793-1807).

listed what he called "the geographical sciences" as an own category next to other groups of sciences such as philological, historical, and medical sciences. Schütz had organised the sciences into sixteen different categories listing geography in position thirteen, together with history. These encyclopaedic tables had been used as the foundation for Ersch's (1793-1807) *Allgemeines Repositorium der Literatur* (*General Repository of Literature*) and as classificatory basis for the *Allgemeine Literatur-Zeitung*, a general review journal published in Jena first edited by Schütz and Semmler from 1785-1841 (see Fig. 4.1).[159] This perception of geography by scholars less concerned with the production of geographical print as a science with own objectives and methods, allows to assume that the wider scholarly understanding of geography also shifted towards regarding geography as an autonomous science.

[159] See also Eschenburg (1800), introduction, 11-14.

I. Alle Schriften enthalten entweder nur Abhandlungen aus einzelnen Hauptfächern.
1. entweder der *Wiſſenſchaftskunde* überhaupt. (I).
2. oder einzelnen Theilen der Gelehrſamkeit, und zwar ſind dieſe
A. *Sprachgelehrſamkeit* (II).
B. *Realgelehrſamkeit.*
a. Poſitive Wiſſenſchaften.
1) Poſitive *Theologie* (III).
2) Poſitive *Jurisprudenz* (IV).
b. Nicht poſitive, oder natürliche Wiſſenſchaften.
aa. Kenntniſſe die ſich auf bloſs nützliche Gegenſtände beziehen.
α. Philoſophiſche Kenntniſſe.
aaa. Anthropologiſche
ααaa. der Natur des Menſchen an ſich.
αα. Kenntniſſe des menſchlichen Körpers, *Arzneykunde* (V)
ββ. Kenntniſſe die ſich auf die menſchliche Seele beziehen;
Eigentlich ſogenannte *Philoſophie* (VI).
bbbb. des Menſchen in Geſellſchaft.
1. *Paedagogik* (VII).

2. *Staats und Kriegswiſſenſchaften* (VIII. VIIII).
bbb. phyſicaliſche
1. theoretiſche *Naturkunde* (X).
2. praktiſche davon abhangende *Gewerbskunde* (XI).
β. mathematiſche Kenntniſſe oder *Mathematik* (XII).
γ. hiſtoriſche, oder *Geographie und Geſchichte* (XIII).
bb. Kenntniſſe der *ſchönen Künſte* und ihrer Werke (XIV).
3. *allgem. Geſchichte der Gelehrſamkeit* (XV).
II. oder es ſind Schriften die Abhandlungen aus mehrern Hauptfächern zuſammen ſtellen, *vermiſchte Schriften* (XVI).

Figure 4.1. Schütz's 'Encyclopaedic tables' in Ersch's (1794) *Allgemeines Repertorium der Literatur für die Jahre 1785-1790* (Ersch (1794), thrid volume, preface, vii).

This section has indicated three main different understandings regarding geography's relation to other sciences. First, earlier in the century, geography was considered a mathematical science; in the second half of the century, many scholars classified geography as a historical science. Second, the emergence of statistics as itself a science in the middle of the century resulted in reflections on the boundaries between geography and statistics, and, from that history. Geography's hierarchical standing and

relation to other sciences, especially statistics and history, was discussed and challenged at the end of the eighteenth century. Adherents of an 'autonomous' geography – a science characterised by own objectives and methods – aimed at understanding geography as a science in its own right, and to 'liberate' it from its subordinate position. My findings show that geography's place was negotiated throughout the century – also with respect to the methods of doing science and geography. These variations indicate the lack of a fixed paradigm – to refer to Thomas Kuhn – regarding the classification and characterisation of geography in its dealings with other fields of study.[160]

## Meaning, production, and practice of geography

The previous two sections have shown differences in the meaning of geography – especially concerning the classification of geographical knowledge and geography's role in the system of sciences. This final section elucidates the interplay between those interpretative meanings and the practices of producing and writing geography. I suggest, that due to the lack of a fixed paradigm, the practice and use of geography affected the interpretations of geography's definition.

The variations in categorising geography were accompanied by changes regarding the relative significance of different geographical parts or themes within German geographical and scientific discourse. Whilst political geography was particularly popular amongst authors during the second half of the century, 'pure' or 'natural' geography (most often meaning mathematical and physical geography) was increasingly promoted towards the end of the eighteenth century. Anton Friedrich Büsching made political geography the main focus of his geography. In this sense, Büsching's *Neue Erdbeschreibung* formed the beginning of a new direction, a "turning-point for geography in his century," as one scholar has argued before.[161] Political geography began to dominate the German discourse during the second half of the century. But I want to show that the discursive dominance of political geography made geography increasingly subject to changes. During the last third and especially towards

[160] See Kuhn (1962).
[161] Bowen (1981), 156.

the end of the century revolutions and wars in Northern America and Europe resulted in frequent changes of territorial boundaries and political structures, and made the production and instruction of geography difficult. The German creation of the field statistics ('*Statistik*' or '*Staatenkunde*') in the second half of the century lead to an increasingly strong 'competition' with, and even attacks from statistics, towards political geography. In consequence, several late-eighteenth and early nineteenth-century geographical scholars turned towards physical geography, and the use of physical boundaries to describe human relationships across space.

The suggestion to focus on physical geography had been made earlier in the century by Polycarp Leyser who had aimed to introduce 'stability' into geography by organising geographical knowledge along natural boundaries – mountains, oceans, or rivers. Leyser was one of the first who argued against the use of a political order in geography. In his *Commentatio de vera Geographiae Methodo* (1726), he made a claim for the use of natural boundaries by arguing that these were immune against changes in the political world: "and almost every year geography changes: because of war and peace agreements the boundaries of peoples are often expanded and, another time, confined again. But what does that concern the natural situation which does not change so easily?"[162]

Leyser's suggestion met with strong opposition from several scholars, and was refuted early in the century. It was rejected by those who considered that geography was a historical science which required the discussion of political changes. Eberhard David Hauber responsed in his *Nützlicher Discours*, *Von dem gegenwärtigen Zustand der Geographie, besonders om Teutschland, Nebst einem Vorschlag zu noch fernerer Verbesserung derselben* ... (1727) that changeability of boundaries were core characteristics of geography. The illustration and description of such changes were the precise purpose of geography. Hauber claimed, "the changeability of [political] borders is not an arduousness of the method but an immutable quality of the science itself."[163]

[162] Leyser in Hering (1728), 16.
[163] Hauber (1727), 171-172, fn g).

He further argued that any natural boundaries would necessarily be based on political names.

> Since also those countries [*Länder*] embedded between natural boundaries, such as oceans, rivers, mountains etc, do not get their names from natural geography [*Geographia Naturali*] but from political geography – from empires and countries which are not necessarily located between rivers, one can easily see that one has to take the political division as a basis and start just from there, not to speak of the mess associated with the other [the natural] order.[164]

Karl Georg Hering also refuted Leyser's suggestion in his *Gedanken von der Nutzbarkeit und Nothwendigkeit der Geographie, Auch von der Methode und Ordnung dieselbe zu tractieren, Uber des hrn. Doct. Und Prof. Leysers Von der Allgemeinen Art darin abgehende Meinung, mit darzu dienlichen Anmerckungen entworfen* (1728). Hering argued that the political division had been considered the "most noble reason" until then, since change ought to be reflected in the mode of geographical knowledge organisation: "As far as I know, all those [scholars] who have hitherto written about the geographical method [*Geographie methodice*], have considered the political division as the most noble mode. They were even assiduous to organise and improve their descriptions according to the occurred changes, their perspective and experience, and the received news or suchlike."[165]

The question became one of the basic characteristics of geography – the question whether change and changeability were inherent to geography or an aspect outside of geography that needed circumvention by the strategies that could introduce stability into the science. The debates around the applicability and utility of natural boundaries and features as main ordering factors ("*Einteilungsgründe*") in geography reflect questions on the purpose of geography and its nature and relation to other sciences. Hering and Hauber argued for geography as a historical science: "When geography ought to be helpful for the notion of history, then it must be organised in such a way that one can understand history which is described based on a political division."[166] They consequently suggested, "and so variability remains a steady feature of geography which

[164] Hauber (1727), 172, fn g).
[165] Hering (1728), 7.
[166] Hering (1728), 16, fn 10, 15.

cannot be removed, as one cannot prevent changes in history and public law."[167] Hering explained Leyser's plea for natural boundaries as an attempt to bring stability into geography: "Apropos, it seems to be the professor's noble intention to base geography on a certain and immutable foundation, and to find – to that end – such a method that can be applied through all times […] because the natural [division], he says, is steady, the political one, however, mutable."[168] In contrast to Leyser, Hering did not consider natural geography to be immutable: "when it is argued that natural geography [*geographia naturalis*] is steady, then I say, in some sense, no." Hering claimed that the earth could not solely be divided by water and land: at some point political boundaries were necessary in order to describe human-made effects on the earth. Due to human changes of the earth, also natural geography was affected by changes. For that reason, Hering argued, political geography ought to be the "guide and base" of natural geography.[169]

Whilst Leyser's suggestion to introduce stability into geography by organising geographical knowledge along natural boundaries was refuted early in the century, claims for a 'natural,' 'real,' or 'pure' classification of geographical knowledge were made again later in the eighteenth and early in the nineteenth century. Johann Christoph Gatterer was one of the first who took up Leyser's argument and – as a compromise – organised geographical knowledge along all three criteria – along mathematical, physical, and political boundaries in his *Abriss der Geographie* (1778 [1775]). Gatterer included a first part "on the study of boundaries" which he divided into "the study of mathematical boundaries" and the "the study of physical boundaries." The former concerned "points and lines," measurements, degrees, meridian and equator, zones, and the turning and polar circle. The latter elaborated on "water boundaries," such as lakes and rivers, and on "terrestrial boundaries," such as mountains and areas and forests. Gatterer's second part concerned "*Länderkunde*" (regional geography or the study of

[167] Hering (1728), 17, fn 12.
[168] Hering (1728), 40.
[169] See Hering (1728), 41-42.

lands or countries) in which he included a section "about the political boundaries of the countries."[170]

Gatterer's hierarchical prioritisation of mathematical and physical boundaries over political ones marked a 'turning point' towards a greater appreciation of natural boundaries. Later scholars were more pronounced in their postulations of a stronger focus or complete shift towards physical boundaries. Friedrich Christian Franz's *Lehrbuch der Länder- und Völkerkunde* (1790) promoted the "natural division" within geographical books, particularly textbooks.[171] Franz justified his position by reference to fluidity of political geography and the situatedness of human-made classifications:

> It is not only a sum of fictional and generally recognised truths which ought to be presented with succinct brevity, placed next to each other in their natural connection, presented in their brightest light: it is a question of describing a machine that consists of uncountable wheels whose smallest parts are in movement and constantly change their relationship to one another. Whilst we fasten our eyes hereupon, everything goes into reverse there. What is strict truth today, has ceased existing by tomorrow. What was yesterday in some regard important for one, hardly deserves announcement tomorrow by another who thinks with a different stream of thoughts and observes and contemplates from another perspective. It is impossible to note every change, to strictly check on all news, to determine a general order of the whole and of the relations of all parts: and it is likewise impossible to provide a complete textbook in this vein. Not even Büsching was able to do so with the unspeakable work of an entire human life.[172]

Wilhelm Traugott Krug' essay 'Outline of a new division of the surface of the earth's surface in accordance with nature and reason' (1801) argued that existing classificatory systems of geographical knowledge were constructed, too complex, solely serving particular scientific and geographical purposes, and were not based on 'nature': "On these grounds, one sees that the entire division of the earth's surface is not made according to a principle appropriate to nature or approved by reason. One followed the chances of time and arbitrariness, and for that reason an illogical, unnatural and only for

[170] Gatterer outlined a third and fourth part on "*Staatenkunde*" and "*Menschen- und Völkerkunde*" – the study of states, and the study of humans and peoples). Gatterer did not finish his description of these parts; his outline however does not centre on boundaries but on historical and cultural geography.
[171] Franz (1790), preface.
[172] Franz (1790), preface.

the scientific use convenient division developed."[173] Underlying Krug's position was the belief that divisions by natural categories were not constructed, and were more logical and simpler.

Some also intended to make geography 'apolitical' ("*unpolitisch*") by abandoning political geography.[174] Their aim was to make geography – its production and instruction – less dependent on political events. Zeune argued in his *Gea: Versuch einer wissenschaftlichen Erdbeschreibung* (*Gea: Attempt at a Scientific Geography*) (1808) that geography and, particularly, political geography were affected by the "game" of politics in which humans were treated like animals:

> Considering how in our times the human being, especially the German, is treated like a pawn, given away, treated like a rug, and stepped down on like an animal without will; considering, how at the same time, his home goes from one hand to another like a catch ball, who would not understand that it would be good to raise this science as something eternal above the finite nature of this game![175]

Arguments for a move to 'nature' were also supported by geographical scholars involved in geographical print production and education. At times of frequent political change, when the production of geography had become a "monthly correspondence," concentrating on physical geography had a practical benefit: it reduced the numbers of updates and re-editions of geographical books.[176] The use of natural boundaries was considered a way to ease the instruction of geography. An anonymous reviewer (1813) of Hommeryer's *Einleitung in die Wissenschaft der reinen Geographie* und *Reine Geographie von Europa* (1811) argued:

> The great changes in political geography since the French Revolution which make the instruction of geography difficult and useless, reminded several men of the thoughts the widely educated Polycarp Leyser once expressed in his Helmstädt programme, that is, to completely banish political relations from geographical lessons, and to use mountains and rivers for a natural division of the earth. Since the general and permanent always precedes the special and changing, one realises easily the great advantages of the pure-geographical

[173] Krug (1801), 495.
[174] Zeune (1808), preface.
[175] Zeune (1808), preface.
[176] Anomymous (1809), 83.

> method, which describes the earth solely based on rivers basins and mountain ranges.[177]

Georg Heinrich Keyser, Professor in Augsburg, stressed, "If one incorporates boundaries and names that are subject to change, then one takes away geography's higher character, removes its inner certainty, then one loses every solid anchor for self-studies, instruction; […] and one ruins the juvenile sense with this political game.[178] "The attempt for a more solid, grounded, and simpler earth description," was well received and introduced in several schools across the German states, including "Mr Tobler with Pestalozzi in Iferten, Mr Linder in the *Bürgerschule* in Leipzig and Mr Schmidt in the local [Berlin] Plamann institute [school]".[179] The production and practice of geography could, hence, affect the interpretative textual meaning of geography.

Those who appreciated the turn to 'nature' differed, however, with respect to the ordering principles of 'pure' or 'natural' geography: the preference of rivers or mountains as objects of organisation. Zeune explained: "There only occurred differences about the question what the constant and solid ought to be. I had taken the irregularities of the surface in a wider sense, that is, heights and depths as basis. That created some opposition by those who wanted to acknowledge only wet boundaries, that means, oceans and rivers, and others who only wanted to recognised dry boundaries, that is mountains and hills."[180]

Johann Ludwig Georg Meinecke, for example, published an essay entitled 'About rivers and mountains as natural boundaries' (1809) in which he argued for mountains – and against rivers – as natural boundaries. Meinecke aimed to find a criterion that would prevent political use from geography – and political influence on the making of geography. He argued that rivers were not beneficial as they connected countries and eased political acquisition. Mountains, in contrast, divided countries and there guaranteed longer actuality. Meinecke's position further expressed a geo-determinism regarding political boundaries. In contrast to Hauber's and Hering's

[177] Anonymous (1813), 433.
[178] Keyser (1810c), 528.
[179] Zeune (1811), preface, i-ii.
[180] Zeune (1811), preface, ii.

arguments earlier in the century, he suggested that by finding the correct category of organisation that represented the 'laws of nature,' geography became free of politics, and one would come to realise that political arrangements actually determined by physical geography: "The geography of states constituted according to the free laws of nature confirms a political order – also in small spaces – which future politics will vainly try to change. […] This demands attention to the true boundaries of nature when describing the surface of the earth."[181]

The debates on the categorisation, delineation, and presentation of geography and geographical knowledge were related to fundamental questions of geography's nature and its role in the system of sciences. Some authors claimed that political geography had never belonged to geography: "Our famous German ancestor Conring rightly separated statistics from geography; and all peoples of Europe adopted his understanding and his German word. Yet, this separation was not completed. There remained statistical bits, called political geography, mixed with geography; and so it happened that after every peace agreement and, in our days, often every fourteen days, a new geography was required."[182] The elimination of political geography implied that geography ought no longer to be understood as a historical science. The argument was that "political changes belong to the realm of the historian".[183]

Alternative suggestions to the elimination of political geography included the understanding of 'pure' geography as an additional branch of geography or as a new 'discipline'. Hommeyer suggested that 'pure' geography ought to be added – as an additional category – to the existing threefold division of geographical knowledge. Hommeyer "defined [...] in the second [main part] the concept [*Begriff*] of geography and its division into mathematical, physical, political, and pure [geography]".[184] Some, thus, called 'pure' geography a "new discipline in the describing sciences."[185]

[181] Krug (1809), 138-139.
[182] Zeune (1808), preface. Hermann Conring (1606-1681) was a German polymath and writer who had promoted the study of *Staatskunde* in Helmstedt in the middle of the seventeenth century (Kühn 1939).
[183] Wittich (1809), 83.
[184] Anonymous (1813), 444.
[185] Anonymous (1813), 444.

Despite an increasing appreciation of a 'turn to nature,' at the end of the eighteenth century and at the beginning of the nineteenth century, such arguments were not shared by all contemporaries. An anonymous response to Krug's essay 'Outline of a new division of the surface of the earth's surface in accordance with nature and reason' (1801) illustrates how several scholars denied the view that natural boundaries simplified geography: "That a system which grants the easiest and fastest overview over the whole does not always docilely adjust to nature, demonstrate all attempts to invent suchlike."[186]

Other authors opposed the turn to physical geography by pointing to the changing nature of all elements of geography. 'Writing' was considered a difficult enterprise by nature. Lebrecht (1804) pointed to the difficulties in producing geographical books that were useful and up-to-date for several years. He stressed,

> that it is an absolutely unfortunate business to aim to write a geography which does not require alteration for a long time, since the objects which it [geography] describes are – not all but most of them – subject to change. And I do not only mean the political changes which occur in a country [*Land*] from time to time; but also villages and towns take a different shape over the years; rivers change their course, mountains provide new minerals; trade changes its direction, and art and natural products which one used to find excellent in one region, are now to be found in very different places, so that one can rather draw the face of a young man, according to his age with durable and identifiable features, than [one can write] a durable description of a country that would be for five or hundred years.[187]

An anonymous reviewer of Bucher's *Betrachtungen über die Geographie und über ihr Verhältnis zur Geschichte und Statistitk* (1812) suggested: "Again, an attempt to limit geography to its true boundaries! It is true, that it [geography] was very much subject to variability in political terms, especially in the recent era, when a peace treaty, [or] a decisive battle greatly changed the boundaries of the countries. Also in physical terms, the surface of the earth does not remain the same. How many changes are not caused by earthquakes, floods etc.?" [188]

[186] Anonymous Nachschrift in Krug (1801), 500-501.
[187] Leberecht (1804), preface.
[188] Anonymous (1814), 221.

Some historians have called the resulting conflict between the adherents of physical and political geography an "in-between-epoch of the so-called 'pure' geography" – a conflict carried out across the German states.[189] Farinelli (2000) has indicated the debates and described it as a "polarization […] between morality and politics".[190] My evidence suggests that the opposing positions were antagonisms between the appraisal of change as the very core characteristic of geography and the rejection of change as a disturbing factor in the search for stability and immutability in the sciences and geography. The different positions were also related to different understandings of the science of geography. Whilst adherents of the former position regarded geography as a historical science inherently characterised by change, the latter aimed at shifting geography to a science of 'nature.'

What became known as a turn to 'pure' geography arose from practical need. The practices of writing and instructing geography required more 'stability' to counteract the frequency of political changes in Europe at the turn of the century. The practice and use of geography, thus, had an influence on the understanding, classification, and organisation of geography because its paradigm was not fixed.

## Conclusion

This chapter has shown variations amongst German scholars in classifying geography and its body of knowledge, and in understanding geography's relation to other sciences. The emphasis on detailed classification of geographical knowledge was part of the Enlightenment encyclopedic enterprise and of geography's ordering nature. The appreciation of the "greatest possible accuracy" and "great conception of order" may be described as an 'obsession' with ordering, classifying, and systematising geographical knowledge amongst German geographical scholars writing in the 'long' eighteenth century.[191] Within the multi-layered debates on classifying geographical knowledge, the

[189] Schultz (1980), 60.
[190] See Farinelli (2000), 945-46. Regarding the later eighteenth century, Feuerstein-Herz (2004) sees a period marked by an increasing interest in physical geography. See also Plewe (1986); Schultz (1980); Farineli 2000; Feuerstein-Herz (2004).
[191] Müller (1789), 122.

three categories subject matter, time, and scope dominated German geographical discourse. Concerning the first, the triad of mathematical, physical, and political geography and their sub-parts were most common. The temporal category 'old,' 'middle,' and 'new' or 'newest' geography were predominant. 'Scope' (together with scale) was usually differentiated between a 'general' description (concerning the entire earth) and a 'special' more detailed descriptions of part of the earth.

In the second half the eighteenth century, German geographical scholars used increasingly diverse versions of the classifying categories object, time, and scope. In that way, the German 'case' differed from the dominant practices in other parts of Europe. Regarding Britain, it has been demonstrated that geography books and lectures were based on a twofold understanding of geography: a mathematical (general) tradition and a descriptive (specific) tradition.[192] The common German threefold classification mode did not resemble that binary division.

It could be argued that what was termed 'physical' and 'political' geography by German scholars was just a further differentiation within the 'textual' tradition. Büsching's and Franz's examples have shown, however, that this speculation can hardly be supported with the evidence presented. The German mode of classification seems to have rather resembled the French tradition. Edme Mentelle (together with Philippe Buache), for instance, divided geographical education into three main parts: mathematical, physical, and political (historical).[193] German authors were well informed and read French and British geographical works, which might have influenced their mode of systematising geography. The German practice of creating multiple levels of knowledge categorisation was also common amongst some eighteenth-century French scholars. Turgot, Baron de l'Aulne (1727-1781) divided political geography into sub-parts. Other scholars have demonstrated the role of French Enlightenment writings for other realms of eighteenth-century German scientific writing; French classificatory

[192] Mayhew (1998b, 2000, 2001); Withers and Mayhew (2002).
[193] See Heffernan (2005), 290.

concepts might have also played a role for several German authors producing geographical print.[194]

The scholarly interest in political geography – along with numerous publications in historical geography – reflected geography's close relationship with history, and the common understanding of geography as an historical science. Whilst geography was long-time considered subordinate – the left 'eye' of history – geography's relation with history was debated and negotiated by German geographical scholars. Towards the end of the century arguments for geography as a science in its own right – as an empirical and descriptive historical science – and 'equal' to history (in a narrow sense) were advanced.

The turn away from political geography and towards physical or 'pure' geography was generated by an inter-scientific 'competition' with statistics, and rose from a practical need during times of frequently changing political landscapes. A few scholars took this idea to its extreme and suggested eliminating all political and historical descriptions from geography: geography ought to be mathematical and physical geography. This position was not supported by all scholars, since it implied a change in the understanding of geography, from an historical to a natural science. The shift in content and classification can also be understood as a consequence of ambitions to make geography a science that is not subordinate to history – by eliminating all historical aspects.

The multi-layered debates and different suggestions concerning content-focus and systematisation of geography signify, as I have suggested, the absence of a fixed paradigm concerning geography's 'internal' and 'external' boundaries. The lack of a fixed paradigm was further reflected in the fact that production and instruction of geography could affect the classification and understanding of geography as a science. The next chapters shall attend to the production of geographical print and the instruction of geography in more detail.

[194] Regarding cultural transfer between France and the German states, see Fabian (1994), and Manz *et al*. (2007) for the eighteenth century. See also Darnton (1979) for a discussion on the eighteenth-century distribution of encyclopaedias within Europe.

# 5

# Geography and print

## Introduction

Figure 5.1. Frontispiece to Volkmann‘s (1778) *Neues geographisches Handlexicon, oder alphabetisches Verzeichniß der vornehmsten Länder, Städte, Oerter und Flüße in allen vier Theilen der Welt: nebst einer kurzen Anzeige der vornehmsten Merkwürdigkeiten eines jeden Ortes, und warum er in der Geschichte zu merken ist*.

In this frontispiece, geographical print appears three times: once in the form of a globe and twice in the form of the book. The book serves two main purposes. It captures and circulates information from travels and explorations – indicated in the title "*Reisen um die Welt*" (*Travels around the world*) held by the female angel pointing to the ship.[1] The book stands as the epitome of geographical learning. A further book lies on a table with a scholar's arm rested on it. This sedentary scholar draws his knowledge from print publications. In turn, his knowledge is captured in a book of which he may be the author. He passes this knowledge on and discusses it with his fellows (symbolising friends, colleagues, scholars, or the learned public). These symbolic representations of geographical print indicate that geographical publications were meant to capture and mediate geographical knowledge collected in explorations and travels in order to share knowledge with scholars and the public – for the progress of science and society.

This chapter concerns geography and geographical knowledge in print, and argues that geographical print served two main purposes: progress *in* geography and progress *of* the German public. The chapter suggests that these two overarching purposes were reflected in the predominance and growth of scholarly and educational print, particularly compendia, textbooks, and periodicals, and the use of print to connect geographically dispersed authors, editors, and publishers.

The chapter is divided into three main sections. Section one begins by describing the two main genres of geographical print – books and periodicals. It shows how their intended purposes, audiences, and growth in numbers reflect the core aims of progress in science and of society. In section two, I elaborate on the objectives of these two overarching purposes and demonstrate how particular genres and certain spaces in print – principally prefaces, postscripts, and footnotes – were used to discuss progress in

[1] The book title '*Reisen um die Welt*' refers to the book entitled '*Allgemeine Historie der Reisen um die Welt zu Wasser und zu Lande….*' which was a popular history and collection of travels based on the English origin '*A New General Collection of Voyages and Travels* ' The book became popular amongst the German-speaking and reading public. The German edition was a result of different translation-routs. The English version was first translated into French and Dutch. The Dutch translation took also the French translation into consideration and added new elements. The German edition was finally based on the English, the French and the Dutch edition, and included additional new elements (see Blanke (2006)).

geography and its utility for society. Progress was guided by the scholarly aims for 'completeness' in geography and geographical print. To ensure improvement, the introduction of quality criteria for writing geography and instruction were central. Geographical learning, on the other hand, was considered beneficial for the improvement of society. The third section examines the conditions and spatiality of geographical print production, and shows how these two aims were sought to be achieved. I will show that geographical print production was present across the German states, and foremost a Protestant phenomenon. In conclusion, then, I propose an interpretation linking geography and its print culture to the nature of 'Germany's' political, religious, and intellectual landscapes. Geographical print – a means to document and implement ideas of progress – became increasingly specialised and a collaborative enterprise. I suggest that geographical print production was characterised by an iterative process.

## German geographical print: books and periodicals

Geographical print in the eighteenth-century German states can be divided into two overall forms: books and periodicals. The predominant genres of books – compendia and textbooks – and the prevailing themes in periodical works show a primary print purpose of progress and enlightenment in geography and society.[2] The section begins by describing books and periodicals, their sub-genres, purposes, and intended audiences. It finally shows how the increase in numbers of books and periodicals reflected the idea of progress in geography and of geography as a means to progress more generally.

My analysis and, hence, my taxonomy are based on these two overall print genres.[3] My analysis is restricted to geographical works, that is, to works that were primarily intended to communicate geographical knowledge. My taxonomy excludes independently published travel accounts. Practically, it would have been impossible to

[2] The terms 'progress' and 'enlightenment' were often used interchangeably for both contexts: advancements of geography and the sciences and advancement of society.
[3] Other material forms are excluded, unless they are part of the former. This concerns, for example, geographical 'tools' ('*Hilfsmittel*'), such as maps (sometimes organised in atlases), different kinds of globes, sketches, images, plans, and tables.

study the entirety of travel accounts within the scope of this thesis due to their large numbers.[4] Travel accounts are therefore only considered when part of periodical works. Geographical descriptions based on travels are included, such as Carsten Niebuhr's *Beschreibung von Arabien: Aus eigenen Beobachtungen und im Lande selbst gesammleten Nachrichten* (*Description of Arabia: based on my own observations and news collected myself in that land*) (1772).[5]

The analysis further excludes translations that were not further edited and altered, and it is limited to works published in the German language – excluding publications in Latin, French, English etc. As in the case of travel accounts, texts in other languages were occasionally part of periodical works and, in those cases, the works are taken into account. Finally, the analysis is restricted to publications of which geography or geographical knowledge form a substantial part. General encyclopaedias, and pedagogical works or textbooks in which geography appeared only to a minor degree are excluded.

My research of geographical print between *c*.1690 and *c*.1815 resulted in the identification of 345 German books of geography and 109 periodical works. My analysis by genre resulted in grouping the books in eight overall categories: (1) "compendia, textbooks, and reading books," (2) "treatises (on the progress of geography and instructions of geography),"(3) "gazetteers/dictionaries (including pocket dictionaries)," (4) "pocket books," (5) "explanations of maps (old and new), atlases," (6) "*Repertorium*," (7) "directories of earth descriptions travel accounts ("*Landes- und Reisebeschreibungen*")," and (8) "Miscellanea" ("letters", verses, tables, picture-book/story books, area measurements).[6] Periodicals appeared under the headings of "magazines," "journals," "archives," "libraries," "*Repertoria*," "*Repositoria*," and as

[4] The existing research literature on travel accounts published in the eighteenth-century German states speaks of a German "travelogue mania". Tautz (2006) has interpreted the German "travelogue mania" – the obsession with travel accounts – as "a symptom of an insatiable quest for accounts of exotic travels which affected late 18th-century Europe" (Tautz (2006), 164). The term "*Lesesucht*" occurs in many eighteenth-century texts (see, *e.g*., Andre (1790), 24). See also Tautz (2006) for a discussion of "*Lesesucht*" in relation to travel accounts.

[5] Second edition in two volumes 1774-1778: first volume in 1774; second volume in 1778.

[6] Compendia were also called systems, manuals, or guidebooks, and ca be regarded as equivalent to British geographical grammars.

review journals and publications of societies. Beyond these two main forms, some miscellaneous forms concerned singular essays and (travel) reports, calendars, or prize questions.[7]

### *German geographical books,* c.*1690 –* c.*1815*

Out of 345 books, 250 were systems or compendia, textbooks, and reading books. Whilst most of these books were seen as both, compendia and textbooks, only ten were reading books. Twenty-two works were treatises written on the progress of geography or the improvement of geographical instruction. Geographical dictionaries – in English also known as gazetteers – came to fifteen works. Finally, a minor number of books was printed as pocket books (4), explanations of maps or atlases (3), directories of existing literature (2) or as "letters" (2), verses (1), tables (1), picture-books (1), and area measurements (1) (see table 5.1).

| **Grouping of geographical book genres** | |
|---|---|
| Compendia/systems, textbooks, and reading books | 250 |
| Descriptions/dissertations | 41 |
| Treatises (on the progress of geography and instructions of geography) | 22 |
| Gazetteers/dictionaries (including pocket dictionaries) | 15 |
| Pocket books | 4 |
| '*Repertorium*,' directory of earth descriptions travel accounts ('*Landes- und Reisebeschreibungen*') | 4 |
| Explanations of maps (old and new), atlases | 3 |
| Miscellanea ('letters,' verses, tables, picture-book, area measurements) | 6 |
| **Sum** | **345** |

Table 5.1. Grouping of geographical books by genres, *c*.1680 – *c*.1815.

[7] A "*Repertorium*" was a directory or dictionary occasionally offering summaries for print (books and/or periodicals) concerning a particular genre or theme of literature, for example earth descriptions and travel accounts.

Geographical systems, compendia, textbooks, and reading books outnumbered other geographical works. A closer look to the main themes and purposes of the books confirms this first impression. Concerning book themes, "general geography" exceeded any other theme: 107 books described the known earth divided by time and space. Besides eight gazetteers and one book on area measurements, all of these books were textbooks or compendia. The second most frequent group of book theme concerned geographical entities: 92 books addressed chorographic themes of different scales, that is, descriptions of continents, regions, and smaller entities (*e.g*., "*Länder*" or lands), or they concerned topographies. Books addressing geography of a particular period – new and newest, middle, or old geography – were the third biggest group with 36 in total. The twenty-two treatises on geographical progress were the fourth most common group followed by nine books on political geography. Seven or fewer books were published on all other geographical topics. This concerned books on physical or mathematical geography, other geographical themes (military geography, trade geography, size of states and products, "subterranean geography," medical geography, nosology, biblical geography *etc*.), pocket books for travels (in Europe, in Nordic countries, in Italy) *etc*. (see tables 5.2 and 5.3).

| **Books grouped by main theme** | |
|---|---|
| **Geography** (description of the known earth, divided by time and space) | 107 |
| **Geographical entities** (chorographies of different scales, descriptions of continents, lands, regions, topographies) | 92 |
| **Historical geography/geography by time period** | 36 |
| **Political geography** (including descriptions of Inhabitants, customs *etc*.) | 9 |
| **Physical geography** (including geography of plants and on animals) | 7 |
| **Mathematical geography** | 7 |
| **Physical and mathematical geography** | 6 |

| | |
|---|---|
| **Geography along with other sciences** | 26 |
| **Treatises on the progress of geography and instructions of geography** | 22 |
| **Other geographical themes** (military geography, size of states and products, "subterranean geography," trade, moon, nosology, biblical geography, medical geography *etc*.) | 22 |
| **Pocket books** (for travels in Europe, in Nordic countries, in Italy) | 4 |
| **Explanations of maps (old and new) and atlases** | 3 |
| **'*Repertorium*,' directory of earth descriptions or travel accounts ('*Landes- und Reisebeschreibungen*')** | 4 |
| **Sum** | **345** |

Table 5.2. Grouping of geographical books by main theme, *c*.1680 – *c*.1815.

Books discussing general geography – geography in its entirety – dominated the geographical book themes, followed by chorographies, and historical geographies. The domination of general geographies signifies the German aspiration of describing the earth in its entirety – a topic explored throughout this chapter.

Concerning the interest in contemporary geography ('new' and 'newest') and historical geography ('old' and 'middle'), numbers differed. Regarding the former, fifteen books were published, twenty-one on the latter. Within historical geography, the interest in ancient geography – knowledge of the Romans and Greeks – was greater than in geography of the Middle Ages. Nine books were issued on the former; only one on the latter. Eighteenth-century scholars concerned with historical geography tried to encourage interest in middle geography – with limited success. Christian Junker's (also Juncker) "*Anleitung zu der Geographie der mitlern [mittleren] Zeiten*" (1712) seems to have remained the only publication on middle geography. Mathias Christian Sprengel's *Geschichte der wichtigsten geographischen Entdeckungen* (*History of the most important geographical discoveries*) (1783) was intended as "outline for academic lectures," and ended with "the arrival of the Portuguese in Japan in 1542." The success

of his first edition motivated Sprengel to a second and its publications as a "generally intelligible compendium," reflecting a demand for the topic.[8] Overall, the marked interest in historical geography is not surprising; geography was seen as a historical science. Former civilisations were of interest in order to better understand and generate progress and enlightenment, and, thus, for some geographical authors this served an interest in stadial theories, models that suggested linear historical progress of civilisations (see chapter 4).

Those German scholars who shared an interest in stadial theory were often informed by foreign literatures, especially Scottish and French works, and saw themselves confirmed in their comparisons of past and newly discovered civilisations.[9] Stadial theory was, however, not defended by all German geographical writers. A variety of historical models coexisted – a mixture of teleological and evolutionary concepts that combined elements of classical, medieval, and humanist philosophy and Christian theology (see chapter 4). For some authors, the historical sciences, including the history of geography, were part of a history of and for education (a "*Bildungsgeschichte*").[10] These authors hoped to educate humankind by help of the historical sciences and in order to reach worldly harmony and perfection.[11] The increase in historical geographical works was, then, also an expression of the eighteenth-century German aim to renew education through historical study.[12] It was illustration of the belief in progress of the science as a means for progress and perfection of humanity – through education (see chapter 6).

Concerning the threefold thematic distinction between political, physical, and mathematical geography, it is notable that the comparatively "larger" number of physical geographical books was published. This reflects a slightly growing German interest in physical geography at the end of the eighteenth century.[13] Almost all books on

[8] Sprengel (1783), preface, and Sprengel (1792), preface.
[9] Bödeker *et al*. (1986), 19; Plewe (1986), 26-48.
[10] Reill (1975), 9.
[11] Reill (1975), 72; Muhlack (1991), 164; Prüfer (2002), 183-205.
[12] Muhlack (1991), 164.
[13] All books on physical geography were published in the last years or at the turn of the century: in 1783, 1792, 1800, 1801-1805, 1802 and 1807.

mathematical and physical geography were published after 1780.[14] The only exceptions in the field of mathematical and physical geography were a textbook on both mathematical and physical geography published by Pfennig in 1758, and an introduction to mathematical geography published by Christlieb Benedictin Funk in 1771.[15] The late eighteenth-century interest in physical geography was also partly a response to the previous predominance of political (also cultural or historical) geography in books concerned with general geography, chorography, or a particular time period. In many compendia and textbooks, large numbers of pages and, hence, proportions of overall content were used to describe the political and cultural aspects of the earth. The late eighteenth-century rise of physical geography was further related to high frequency of changes of European political borders, which made the writing of political geography an increasingly burdensome enterprise. In consequence, several authors suggested a stronger focus on physical geography and the division of geographical knowledge by natural boundaries (see chapter 4).

| **Books by themes in detail (with indication of genre)** | | |
|---|---|---|
| **Geography of the whole earth: divided by time and space** | **107** | |
| ….textbooks on geography | | 37 |
| … compendia on geography | | 36 |
| … introductory textbooks and compendia on general geography for children and “beginners” | | 16 |
| … compendia or textbooks on pure geography | | 9 |
| … gazetteer | | 8 |
| … measurement | | 1 |

[14] This increase is partially also related to the prevalence of the vernacular languages in academic publications during the eighteenth century. This influence is, however, relatively small. Only a very few books on mathematical geography were published in Latin early in the century. No books on physical geography in Latin have been found. The publication of separate books in mathematical and physical geography may then rather reflect the growing specialisation within the sciences throughout the century.
[15] Pfennig’s book saw three editions, but Funk’s did not run to a further edition.

| | | |
|---|---|---|
| **Geographical entities** (chorographies of different scales, descriptions of continents, lands, regions; topographies)[16] | **92** | |
| … compendia/systems concerning one or several continents | | 24 |
| … compendia/systems/textbooks concerning countries, empires, smaller regions | | 59 |
| … topographies | | 3 |
| ... gazetteers concerning all German states (including one on villages) | | 3 |
| ... gazetteers concerning Swabia | | 2 |
| ... gazetteers concerning Hungary | | 1 |
| **Historical geography/geography by time period** | **36** | |
| … new and newest geography (compendia, textbooks, in verse) | | 15 |
| … old geography (compendia and textbooks) | | 9 |
| … historical geography (compendium and textbook) | | 5 |
| ... history of discoveries, history of maps (outline for academic lectures, compendia) | | 4 |
| … old and middle geography (compendium) | | 1 |
| … middle geography (textbook) | | 1 |
| … dictionary /gazetteer on old geography | | 1 |
| **Inhabitants, customs** (part of political/cultural geography) | **9** | |
| … textbooks and reading books | | 8 |
| … picture books | | 1 |
| **Physical geography** (including geography of plants and on animals) | **7** | |
| … compendia, systems | | 6 |
| … introductions/treatises | | 1 |
| **Mathematical geography** - compendium and textbook | **7** | |

[16] The fact that there were separate gazeteers for Swabia and Hungary may be read as an indication that possibly also gazeteers for other specific regions existed. The data presented is, however, based on my research between May 2010 and June 2013; it does not claim to be 'complete' (see chapter 1).

| | | |
|---|---|---|
| **Physical and mathematical geography** | **6** | |
| … introductions/treatises | | 4 |
| … compendia | | 2 |
| **Other geographical themes** (military geography, size of states and products, 'subterranean geography,' trade, moon) | **22** | |
| … textbooks/compendia on military geography | | 3 |
| … on biblical geography | | 3 |
| … on trade geography | | 3 |
| … textbooks on "subterranean geography" | | 2 |
| … size of states and products | | 2 |
| … on mineral geography | | 2 |
| … on sacred geography | | 2 |
| … treatise on the moon | | 1 |
| … on ecclesiastical geography | | 1 |
| … on geography of nosology | | 1 |
| … on forest geography | | 1 |
| … on medical geography | | 1 |
| **Geography along with other sciences** | **26** | |
| … reading books | | 4 |
| ... compendia, textbooks on geography along with other sciences | | 22 |
| **Explanations of maps (old and new) and atlases** | **3** | |
| **Treatises on the progress of geography and instructions of geography** | **22** | |
| … on teaching geography | | 12 |
| … on the progress of geography (including about geographers) | | 10 |
| **Pocket books** (for travels in Europe, in Nordic countries, in Italy) | **4** | |

| | | |
|---|---|---|
| **'Repertorium,' directory of earth descriptions travel accounts ('Landes- und Reisebeschreibungen')** | **4** | |
| **Sum** | **345** | |

Table 5.3. Detailed grouping of geographical books by theme, with indication of genre, *c*.1680 – *c*.1815.

Most books were intended for instruction in learning geography: 239 books made reference to self-education or instructed learning in private homes, schools, colleges, and universities. If one adds the twelve treatises on the role and improvement of geographical learning to this group, then 251 books (72.8%) have a reference to learning. Scholarly and interested use came second with 100 books; general use came only third with twenty-five books. The twenty-two treatises written on the progress of scholarly and instructed geography were followed by the last category of "particular groups." This group included books for consultation and learning particularly for current and future coachmen and carters, merchants, and theologians, physicians, foresters, civil servants, Bible readers, and women (see tables 5.4).

| **Books by intended audiences and purposes** | |
|---|---|
| Learners in geography (beginners, youth, private learning, self-instruction) | 239 |
| For scholarly and geographical audiences ("enthusiasts" of geography) | 100 |
| For general use, multiple audiences (general reading public) | 25 |
| About the instruction of geography and the progress in geography (for scholars, those involved in the improvement of the science, administrative/official actors, teachers *etc*.) | 22 |
| Particular groups (coachmen and carters, merchants, tradesmen, civil servants, physicians, forest workers and administrators, theologians, Bible readers, women) | 21 |
| **Sum** (the sum is greater than the number of books, since several books were intended for several audiences) | **407** |

Table 5.4. Grouping of geographical books by intended audiences and purposes, *c*.1680 – *c*.1815.

To judge from their titles and prefaces, 239 books were intended for what I have called "learners" in geography, included children, adolescents, and parts of the general public that were either "beginners" in geography or willing to pursue self-education in geography. These books – mostly compendia and textbooks – were in the majority of cases also addressed to the actors involved in geographical instruction, such as teachers and parents. One hundred books were intended for scholarly – often geographical – audiences and for the educated public, particularly, connoisseurs and "enthusiasts" of geography. These books were most often compendia. Eighteenth-century authors were aware, though, that books were also used by audiences not mentioned in prefaces. Funke stated in the preface of his *Neues Real-Schullexicon* (*New school dictionary/gazetteer*) (1800), that the first dictionary had been intended "for the studying youth," "yet, who does not know that it [the book] has been used by men – who were scholars of first rank –, and perhaps even more often by them than by those [the studying youth] […] when they could not draw upon own sources?"[17] There were, hence, overlaps between books in terms of their purpose. A clear line can hardly be drawn in any case. But in sum, geographical books were chiefly produced for learning purposes and to bring out progress in the science. That geography was a science for which progress was desired is shown in the number of systems, compendia, textbooks, and reading books predominantly written on general geography and intended for scholarly and learning audiences. The overall aim for progress in geography is further reflected in the twenty-two geographical works (6.4 %) which were solely printed to discuss and generate further progress in geographical instruction and geography as sciences. These works reflected on the state of geographical knowledge and teaching, and were concerned with the improvement of the methodologies and methods of geographical writing and education. These purposes are, finally, also reflected in the periodical works published during the eighteenth century.

[17] Funke (1800), preface.

### *German geographical periodicals,* c.*1690 –* c.*1815*

The predominance of the learning and progress paradigm is also reflected in the purposes and intended audiences of periodical works: 109 periodical works were edited and, mostly, for scholarly and educational purposes. The journal or periodical, a genre "to which the English have, shall I say, prompted or tempted us Germans," in imitation of the English as Anton Friedrich Büsching argued, became increasingly popular during the eighteenth century.[18] The periodical became a supplement to the book and a less costly form of print which could reach a wider and growing scholarly and literate general public. "We combine our works," professors Spittler and Meiners noted in 1787, "because we believe that they will attract a more manifold interest; and we chose the form of a periodical work, since we hope that we will reach more readers that way and will, hence, be of more use than when each of us prints his essays in greater volumes or collections."[19]

The majority of these periodicals – 60 out of 109 – addressed geography as a whole. The other forty-nine periodical works were concerned with topics related to geography, including journals addressing other sciences and overarching themes of which geography was part, such as historical, political, statistical, trade, and moral themes (see table 5.5). Since the great majority of these periodical works (102) was published after 1760 (see Fig. 5.4), these numbers demonstrate an overall interest in geography as a science in its own right and not solely as a discipline providing knowledge to inform other sciences at the end of the eighteenth and early nineteenth century (see chapter 4).

| **Periodical themes (short version)** | |
|---|---|
| Geography as a whole, geographical themes | 60 |
| Topics related to geography | 49 |
| **Sum** | **109** |

Table 5.5. Grouping of geographical periodicals by overall theme, *c*.1680 – *c*.1815.

[18] I use the terms 'periodical' and 'journal' interchangeably.
[19] Spittler and Meiners, *Göttingisches Historisches Magazin* (1787), preface.

Most periodicals concerned with "geographical themes" focussed on general geographical knowledge and information – earth description across time and space. They often included news from travels. Twenty-seven journals addressed geography in connection with other sciences – mostly history and statistics. Several journals were concerned with chorographic and topographic topics, and centred either on particular continents, such as Asia, America, and Europe, or on particular empires and countries, including Russia, and "German provinces". Thirteen periodicals centred on particular German states or regions such as Westphalia, Prussia, Franconia, Saxony, and Bavaria. One periodical work was finally concerned with all states except the German ones. Another small group included periodical works primarily concerned with physical and military geography respectively (see table 5.6).[20]

| **Periodical themes** | | |
|---|---|---|
| General geographical information, news | **34** | |
| Geography in connection with other sciences, especially history and statistics | **27** | |
| All sciences, other sciences, and overarching and related themes of which geography was part of (sciences in general; historical, political, statistical, trade, and moral themes) | **22** | |
| Chorographic themes (continents – America, Europe, Asia –, regional geographies – Arabia, Prussia and its neighbouring states –, the world besides the German states) | **23** | |
| … Asia | | 3 |
| … America | | 2 |
| … Europe | | 1 |
| … Russia | | 1 |

[20] Bernoulli (1785-1788) and Fischbach (1781-1785) respectively. One journal primarily concerned with travel accounts was Blumenbach's *Sammlung seltener und merkwürdiger Reisegeschichten* (*Collection of rare and remarkable travel histories*) (1789-1790).

| | | |
|---|---|---|
| … Hungary | | 2 |
| … 'Germany' ("German provinces and other areas that are not sufficiently covered in our usual statistical textbooks")[21] | | 1 |
| … Westphalia | | 6 |
| … Prussia | | 2 |
| … Franconia | | 2 |
| … Saxony and its neighbouring states and countries/realms | | 1 |
| … Bavaria | | 1 |
| … Southern "Germany" ("*Oberteutschland*") | | 1 |
| Sub-themes of geography (*e.g.*, physical geography, military geography) | 3 | |
| **Sum** | **109** | |

Table 5.6. Detailed grouping of geographical periodicals by overall themes, *c*.1680 – *c*.1815.

Most journal editors addressed scholars and "enthusiasts" of geography (81). Six journals targeted particular groups including merchants, statesmen, and students. Thirteen journals were primarily addressed to informed readers and scholars in particular German states or regions. Forty-two journals were finally produced for the general reading public (see table 5.7).

| **Periodicals grouped by intended audiences** | | |
|---|---|---|
| **Particular/specified audiences** | **100** | |
| … Scholars and "enthusiasts"/ "lovers" of geography | | 81 |
| … Merchants, statesmen, students | | 6 |
| … readers in Westphalia | | 6 |
| … readers in Prussia | | 2 |

[21] Rösler (1800), preface.

| | | |
|---|---|---|
| … readers in Franconia | | 2 |
| … readers in Hungary and Austria | | 2 |
| … readers in Saxony | | 1 |
| **General German (reading) public** | **42** | |
| **Sum** (the sum is greater than the number of periodicals, since several periodical works were addressed to multiple audiences and purposes) | **142** | |

Table 5.7. Detailed grouping of geographical periodicals by intended audiences, *c*.1680 – *c*.1815.

An alternative and closer look that considers both audiences and purpose shows that most journals were intended for scholarly or learned purposes (81). Sixty-one periodicals were (also) published for the general public. Within the first group, fifty-four works were concerned with progress of geography, and eleven with progress of related sciences such as history or state sciences. Thirteen journals were also written for "enthusiasts" of geography keen on being informed its progress. Journals published for the general public were mostly concerned with public learning and enlightenment (26). A small group of journals was intended to inform the reading of newspapers (6) and, thus, also had an education and information incentive. A subgroup emphasised the connection of learning and enlightenment. Minor numbers of periodicals were produced mainly to spread *eudaimonia* ("*Glückseligkeit*") through knowledge (3), to combine learning and entertainment (3), and to inform about foreign geopolitics (1) (see table 5.8).

| **Periodicals grouped by purpose and intended audiences** | | |
|---|---|---|
| **Scholarly/learned purposes** | **81** | |
| … Progress of the science: scholars | | 54 |
| … Progress of the science: for "lovers"/ "enthusiasts" of geography | | 16 |
| … Progress of related sciences (5 history, 7 other sciences): scholars | | 11 |
| **Public learning, information, and entertainment** | **61** | |

| | | |
|---|---|---|
| … Information/learning and enlightenment for the general public (educated and reading/literate public) | | 26 |
| … Information of audiences in particular states (Westphalia, Franconia, Prussia, Bavaria *etc*.) | | 13 |
| … For reading newspapers | | 6 |
| … For information of statesmen or businessmen | | 4 |
| … "*Glückseligkeit*" (*eudaimonia,* bliss or happiness)[22] | | 3 |
| … For use (information and learning) of several audiences (scholars, business men, statesmen, students) | | 3 |
| … Entertainment and learning | | 3 |
| … For teaching young people | | 2 |
| … Informing about Northern American politics | | 1 |
| Sum (sum greater, since several periodical works multiple purposes) | 142 | |

Table 5.8. Detailed grouping of geographical periodicals by purpose and intended audiences, *c*.1680 – *c*.1815.

Periodicals published earlier in the century were mostly rather for general public use, and combined geographical themes with other sciences. They intended to spread enlightenment and learning, and, particularly, to inform the reading of newspapers. Later in the century geographical topics were more pronounced. Journals designed to address purely geographical themes were issued after 1764 – beginning with Hager's *Geographical Library* (1764-1778) (see Fig. 5.2).[23] These periodicals were most often produced for scholars, and to generate progress of geography, or for enthusiasts of geography. Periodicals published very late in the century – especially during the last decade – and at the beginning of the nineteenth century, were almost all intended for geographically interested audiences. This indicates a growing popularity and interest in

[22] I have translated '*Glückseligkeit*' as '*eudaimonia*'. Other contemporary scholars working on the eighteenth-century German states have used 'bliss' as a translation (see Oz-Salzberger (1995)). The term '*Glückseligkeit*' refers to the state of being happy and joyful (inner joy and peace) and blissful (see Engelhardt (1981), Pleines (1984)).

[23] Johann Georg Hager (1764-1778) *Geographischer Büchersaal, zum Nutzen und Vergnügen der Liebhaber der Geographie eröfnet* (*Geographical Library introduced for the use and pleasure of enthusiasts of geography*).

geography. It further shows a greater specialisation and a greater emphasis on specifically reaching greater progress in geography.

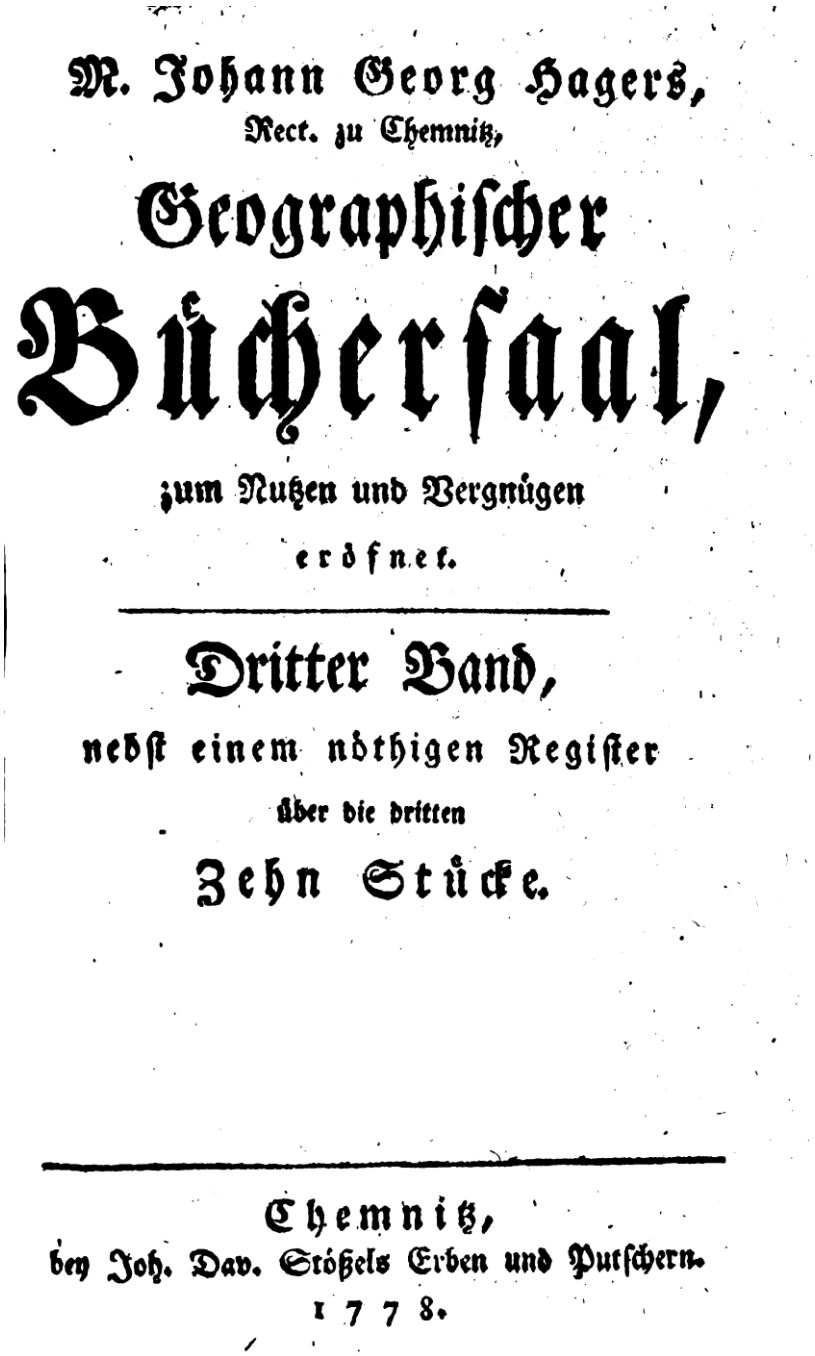
Periodicals targeted at the general public often concerned state sciences and political matters (*e.g*., Ebeling's *Amerikanische Bibliothek*), overarching themes or various sciences (*e.g*., *Wissenschaften und Litterature*, such as the *Journal aller Journale*, and the *Wissenschaftliches Magazin zur Aufklärung*). Periodicals with a focus on travel accounts and geographical themes in connection with other sciences (especially historical and statistical themes) were often intended for the general public (*e.g*., *Der Reisende: ein Wochenblatt zur Ausbreitung gemeinnütziger Kenntnisse*, *Quartalsschrift…zum Unterricht und Unterhaltung, aus Reisebeschreibungen Geographische Belustigungen; Allgemeines Journal für die Handlung oder gemeinnützige Aufsätze, Versuche und Nachrichten*).

The main targeted audiences reflect a distinction between a general reading and a scholarly – intellectual – public (the republic of letters). This was first often related to economic reasons. Fabri extended the audiences of his journals when he realised that the general public took an interest. This concerned his *Geographisches Magazin* (written for the reading public as a whole) and his *Historische und geographische Monatsschrift] Historisches und geographisches Journal* (together with Hammerdörfer). Fabri adjusted the content of his journals, but also since he had to earn a living from publishing. The university in Jena would not pay him a salary.[24] On the other hand, it also illustrates an increase of the educated and geographically interested public – the realisation of scholarly enlightenment aims.

Overall, it can therefore be argued that all journals sought to promote learning. Their approaches, main emphases, and audiences varied. They ranged from scholars to enthusiasts and parts of or the entire general public. They were concerned with the dissemination of geographical knowledge for the progress of geography, public learning and enlightenment, *eudaimonia*, entertainment, and political information. In sum, almost all journals were primarily concerned either with progress of geography and the sciences or progress of society or both – and with a stronger emphasis during the last third of the

[24] Plewe (1986).

century. The journals' role in the aspiration of progress was the fast and inconvenient dissemination of geographical knowledge, as the journals' different frameworks and text genres indicate.



M. Johann Georg Hagers,
Rect. zu Chemnitz,

Geographiſcher
Büchersaal,

zum Nutzen und Vergnügen
eröfnet.

Dritter Band,
nebſt einem nöthigen Regiſter
über die dritten
Zehn Stücke.

Chemnitz,
bey Joh. Dav. Stößels Erben und Putſchern.
1778.

Figure 5.2. Frontispiece to Hager's *Geographischer Büchersaal* (1778).

Every periodical had its own framework and composition of different types of text. Most journals were a mixture of letters (printed correspondence), essays, news, announcements of prize competitions across Europe, reviews of literature, excerpts and biographies of past geographers or other scientists. Authorship of essays, translations, and reviews often remained anonymous, unless the editors were the authors. Editors were most often members of the scholarly and learned public. Franz Xaver von Zach (1754-1832), for example, stated in his "*Geographische Ephemeriden*" (*Geographical ephemerides*) (1798-1799) that his journal would include essays by numerous European correspondents and geographical "observations," "experiences," "discoveries," "inventions," "critical reviews and news in recent science-driving publications," "critical news of new maps, plans, astronomical and mathematical tools etc.," "biographical news and portraits of men who have contributed substantially to these subjects [geography and astronomy]," and "news from travelers."[25]

A few periodicals contained only a single text or a very few longer texts, often translated and edited travel accounts or essays.[26] Examples are Mathias Christian Sprengel's (1794-1798) *Auswahl der besten ausländischen geographischen und statistischen Nachrichten* and Blumenbach's *Sammlung seltener und merkwürdiger Reisegeschichten* (*Collection of rare and remarkable travel histories*) (1789-1790). A few periodicals mainly provided commented bibliographies or reviews of various kinds of published and unpublished geographical literature and geographical "tools." This concerned Anton Friedrich Büsching's *Wöchentliche Nachrichten von neuen Landcharten, geographischen und statistischen Sachen* (1773-1788), Friedrich Gottlieb Canzler's continuation as *Neue Wöchentliche Nachrichten*... (1788-1789), and Canzler's *Allgemeines Literaturarchiv für Geschichte, Geographie*... (1792-95).

Almost all journals referred to print and geographical "tools" (especially maps and globes) produced all over Europe and, sometimes, in other parts of the world. The Cosmographical Society (*Mitglieder der Kosmographischen Gesellschaft* 1750) referred

[25] Zach (1798), preface.
[26] Several periodicals included past and recent travel accounts. These were most often translations, or summaries, excerpts, or edited versions. Travel accounts are, in that context, part of my analysis, whilst I have excluded independently published travel accounts, of which there was very high numbers.

to Russian, Chinese, and Turkish descriptions of the earth. Sprengel (1794-1798) discussed Japanese maps of Japan; Hegewisch and Ebeling (1795-97) referred to books and journals published in Mexico. Sprengel's *Auswahl der besten ausländischen geographischen und statistischen Nachrichten* (1794-1798) and Zimmermann's and Bruns's (1792-1793) *Repositorium für die neueste Geographie, Statistik und Geschichte* were written for the sole purpose of collecting and disseminating geographical information published in other countries. Several journals published tables of various aspects, including data of weather observations, calculations of states' surface areas, astronomical observations (lunar and solar eclipses), population figures, and trade and state finance. Several journals, such as Zach's, enclosed calculations, astronomical images, "paintings," "plans," and "maps." Zach, for example, included a plan of the waterfall Sarp in Norway (painted by a pastor in Edsberg).[27] Gaspari inserted several maps including a "travel map from Leipzig to St. Petersburg."[28] Other editors included city plans or maps, such as, from Paris or Constantinople, maps of continents and countries, or world maps, such as Hausen's "Map showing the states of the Maharajas and the bordering lands in Indostan…" and Müller's "Planisphere in Mercator projection".[29] The insertion of maps and images was a form of knowledge transfer and advertisement. Such images could support the understanding of a text though illustration. On the other hand, editors also included maps to raise awareness and market

[27] "Plan des berühmten Wasserfalls Sarp im Klommen Strom in Norgewen mit dem großen Erdfalle daneben gezeichnet von I.N. Wilse, Pfarrer zu Edsberg" in Zach (1798) *Allgemeine Geographische Ephemeriden*, first volume (Band), issue 4 (viertes Stueck), April, before page 509 (vor Beginn des 5. Stuecks, Mai 1798).

[28] "Reise-Charte von Leipzig nach St. Petersburg." In Gaspari (1800) *Allgemeines Jahrbuch der Geographie und Statistik*, between pages 144 and 145.

[29] "Karte über die Staaten der Mahratten und die angrenzenden Länder in Indostan aus vielen gantz neuen Karten und Nachrichten zusammengetragen" in Hausen (1783) *Historische Portefeuille zur Kenntnis der gegenwärtigen und vergangenen Zeit*, second year/volume, first issue (zweyten Jahrgangs erster Band), after page 752. "Planishere in Merkator Projektion" in Müller, Johann Carl (1782) *Historische, Statistische, Geographische Belustigungen*. "Die andere Karte ist nach dem Entwurf des Merkators, den man auf der See gebraucht, entworfen. Er ist dem vorigen just entgegengesetzt. Es kann vielleicht nützlich sein einerlei Gegenstand unter verschiedenen Gesichtspunkten darzustellen" (after page 52) ... City map of Paris entitled "Neuester Plan der Stadt Paris mit ihren Umgebungen Nebst dem Verzeichnis der Straßen und Plätze, welche seit der Revolution ihre Nahmen verändert haben" in Gaspari (1800), between pages 178 and 179. City map of Constantinopel entitled "Plan von Constantinopel nach dem Brande vom 21 August 1782" in Hausen (1784), thrid year (*dritten Jahrgangs*) first volume/issue (*erster Band*), after page 696.

a new atlas they or a related person was selling. This was the case for Müller (1782) who advertised an atlas available in his book store.

The advantage of publishing information in periodicals was their flexibility in terms of form, composition, and frequency although not all periodicals were successful. Whilst some journals had only one issue (*e.g.*, Ehrmann 1783) or lasted only for one year (*e.g.*, Fabri 1797), others were published over several decades (*e.g.*, Büsching 1767-93), Westenrieder 1788-1817)). Some periodical works were issued weekly (*e.g.*, Büschings 1773-1788), others monthly (*e.g.*, Zach 1798-1799, 1800-1813) or yearly (*e.g.*, Zimmermann 1790-92). The publication of some journals was periodically interrupted (sometimes for several years) due to economic constraints or national and international political tensions. Most journals were published and marketed both as issues and again as volumes. Several periodicals were re-issued by keeping the old title and preceding it with the adjective "*Neu*" ("New") (*e.g.*, Heinze 1786-87; Sprengel and Forster 1790-1793).

### *Numbers and growth of geographical print*

The majority of geographical books and periodicals were published in the late eighteenth and early nineteenth century. Figure 5.3 illustrates a growth in geographical books during the last two decades of the eighteenth and the first ten years of the nineteenth century. The increase of journal publications, particularly during the last twenty years of the eighteenth century, is visualised in figure 5.4.

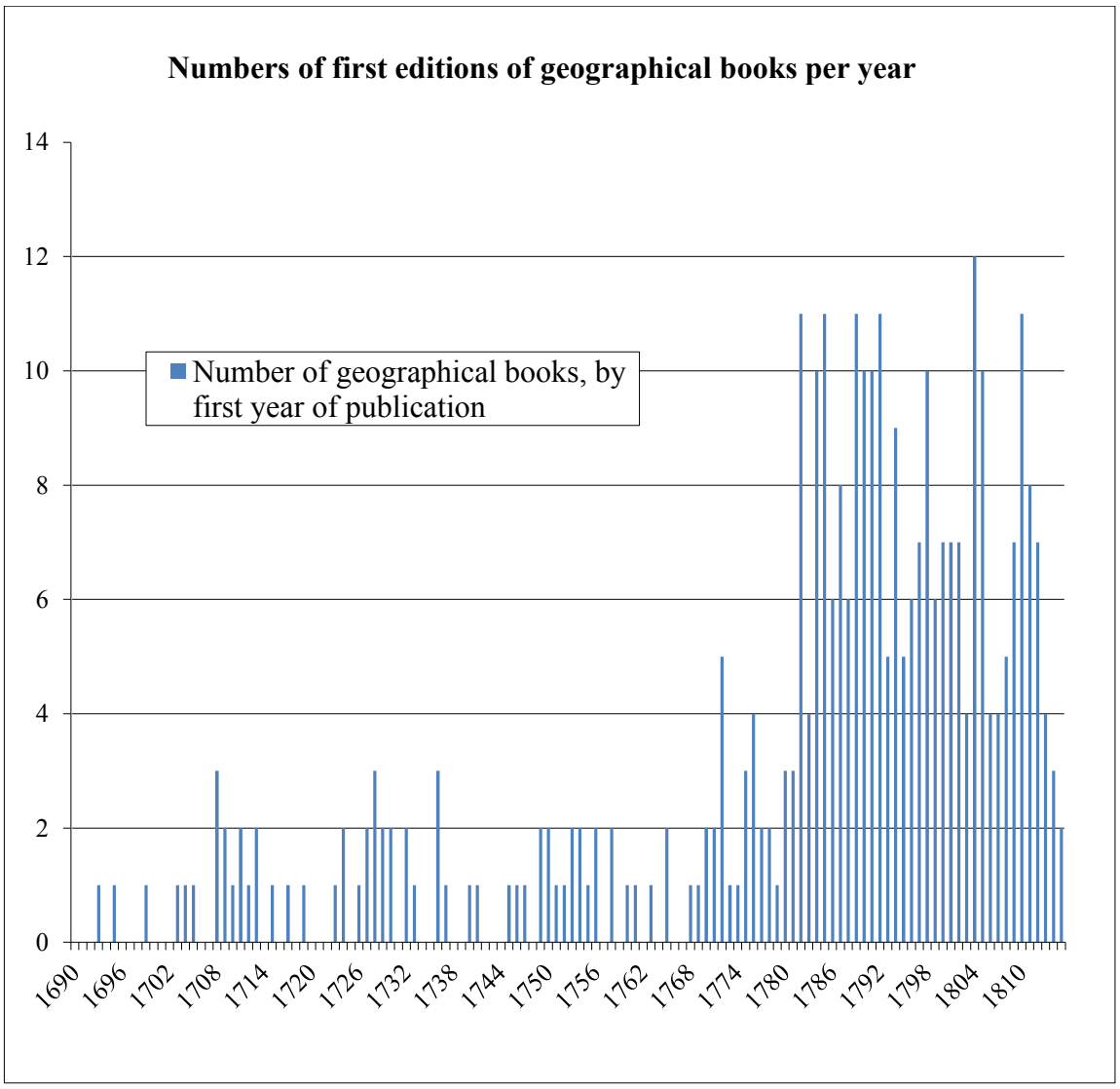



Figure 5.3. Yearly distribution of 345 German geographical books published in the German states, by year of first edition or year of first identified version, *c*.1690 – *c*.1815.

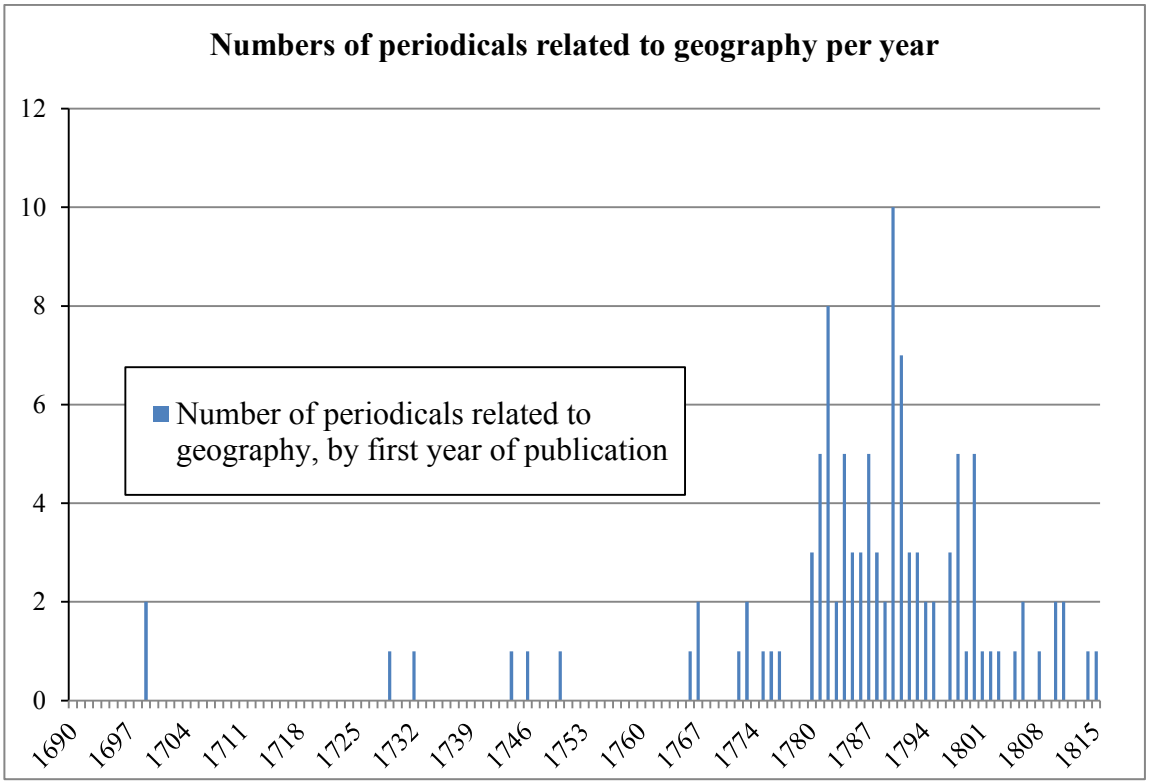



Figure 5.4. Yearly distribution of 109 German periodicals on geographical themes published in the German lands, by year of first edition or year of first identified version, *c*.1690 – *c*.1815.

The development of geographical books (by year of first edition) was characterised by two different periods.[30] Between 1690 and 1781 mostly one or two books were published, and the primary focus was on geography as whole – in the form of compendia or textbooks. Exceptional years were 1772 and 1776: in the latter, four textbooks were published, in the former additionally a chorography (on Hungary) and Carsten Niebuhr's description of Arabia. The second period between 1782 and 1815 was marked by a general growth in numbers and particular high peaks in 1782, 1784, 1785, 1789, 1790, 1791, 1792, 1798, 1804, 1805, and 1810.

[30] Many books experienced multiple editions. The analysis of numbers over time is restricted to years of first edition here in order to account for the novelty of publications.

In 1782, eleven books appeared, of which nine were textbooks (with one on products), one a mathematical geography for scholarly use, and one a gazetteer. The ten books published in 1784 included one chorographic textbook centring on Bavaria (with a general introduction), two treatises on geographical teaching methods and the benefits of geographical instruction, one geography of Asia for scholarly and public learning, two compendia on historical geography for geographical audiences, Reinhold Forster's *Geschichte der Entdeckungen und Schiffahrten im Norden* (*History of discoveries and explorations in the north*), and one directory of travel accounts. In 1785, eleven books were published, including two textbooks, a mathematical geography, a geographical compendium, a short compendium of geography, and history of the earth (all four for enthusiasts and public learning), a description of area and population sizes of all known states, a topography of the duchy Magdeburg, a chorography of the 'Austrian Netherlands,' and two books on 'newest geography' focusing on new findings in all continents, and particularly Australia, the 'southern lands' ('*Südländer*'), and 'polar lands' ('*Polarländer*') (all five books for scholars and educated men).

The eleven books published in 1789 concerned a treatise on the instruction of geography, textbooks and compendia for teaching geography, especially on political geography (national characters and customs), old geography, and geography and history of 'Germany'. They included several work for scholarly use and progress of geography, such as an elaboration on an imagined ideal earth, a compendium on geography (Gatterer's *Begriff der Geographie*), a compendium on 'old' geography, a German village-geography, and a chorography of Transylvania. Finally, one pocket book for travelling in Italy was published. In 1790, five textbooks appeared; one emphasised the inclusion of newest findings concerning Australia and the 'southern lands', another one focused on the Prussian states. Two treatises on the teaching geography were published, as well as one compendium of geography for scholars and lectures, one compendium on the Austrian state (for the scholarly and interested public), and one on biblical geography. In 1791, three general textbooks and compendia for the youth and "enthusiasts" of geography appeared, one textbook on the Prussian States, one book on the Russian empire for the youth and for self-education. A description of the Austria

provinces south of the Ens and one on Austria north of the Ens were intended for scholars and learning and civil servants respectively. One geographical compendium on the "most distant lands, particularly Asia, Africa, America, Southern India" for the educated public, and a gazetteer on Swabia were published. In 1792, the focus of publications shifted towards France with a geographical description of France, and an explanation of a new map of France. Besides one textbooks and a compendium for general geography, a book on mathematical geography and one on physical geography were published for scholarly audiences and self-learning. Two pocket books addressed travels and possible illnesses and information about travelling in northern countries respectively. 1798 was characterised by a geographical system for "humaneness and Enlightenment,"[31] a treatise on the instruction of geography, a textbook on old geography, textbook on war sciences including mathematical geography, chorographies for scholarly and learning use addressing China, all German electorates, Saxony, Styria, and Salzburg, a collection of works and documents relevant writing for 'middle' geography, and a lecture on mathematical geography given in the academy of useful science in Erfurt in the same year.

In 1804, twelve books were published, of which six were textbooks (three on the entire earth, one on newest geography, one on Europe, one on the Prussian state), one a geography in 'letters' for women, one compendium for use in schools and private learning, one an ecclesiastical geography (for lectures), and topography of the duchy Berg. In 1805, two textbook appeared (including one on Europe), one compendium for learning about newest general geography, a geography of all continents but Europe (as textbook and compendium), a description of Asia (especially Hindustan), a statistical geography of Bohemia, description of Palatinate-Bavaria (especially physical geography and agriculture, also for instruction), a topography of the county 'Gleichen,' a trade geography, and a military geography.[32] In 1810, six textbooks were published, of which three used "less changeable principles," that is, the applied natural boundaries instead of

[31] Rumpf (1798), title.
[32] The county 'Gleichen' ('*Grafschaft Gleichen*') was a county reigned by the German nobility 'Count Gleichen' and located in the centre of the Holy Roman Empire. In 1802, it became part of Prussia (see Hellbach (1805)).

political ones.[33] One textbook concerned Saxony, another one Bavaria. A treatise elaborated on geography's relationship with statistics and ethnography, one books for learning was written on "pure geography" of Europe, one concerned political geography, and one geography of the "new continent" (southern America) based on Alexander von Humboldt's and Aimé Bonpland's findings.

Overall, between 1782 and 1800, books addressed various geographical themes, such as geography as a whole, chorographic themes and thematic parts of geography, such as political, physical, mathematical, 'old,' and 'new' or 'newest' geography. Chorographic themes appeared increasingly, demonstrating both an interest in the German states and their provinces and an interest in geography overseas – particularly America, Asia, Australia, and Oceania. The interest in the latter was motivated by the ongoing geographical explorations, especially concerning the 'discovery' of Australia as detached from Antarctica, and the 'interiors' of America and Asia. The participation of German explorers, such as Carsten Niebuhr and Reinhold Forster, generated further interest and publications on foreign lands. Progress in geography was further illustrated by treatises written on the state of geography and its relation to other sciences. Besides these concerns with the improvement of the science, interest in America and France was further politically motivated with respect to the ongoing revolutions and wars. The second dominating theme concerned geographical learning – in schools and at home – demonstrated in the great numbers of textbooks and compendia on geography as a whole and with chorographic focus. After 1800, these trends continued, yet, with a greater concentration on specialised themes and a shift towards physical geography and the use of natural boundaries. Throughout the century, and particularly in between *c*.1780 and *c*.1815 certainly also geographical books with a practical connotation were published, including works on travel advice, military geography, trade geography, forest and medical geography, and gazetteers. Overall, however, learning, and scholarly progress in the science were the dominated purposes.

Looking at the evolution of periodical works, three periods can be distinguished: 1690-1780, 1781-1791, and 1792-1815. Between *c*.1690 and *c*.1780 one or two

[33] Blech (1810), title.

periodicals were issued per year, until the late 1750s often to support the reading of newspapers. One exception was the *Kosmographische Nachrichten und Sammlungen auf das Jahr 1748* published by the cosmographical society in Nuremberg which was concerned with the progress of geography and cosmography. In 1760s periodicals aimed to inform about geographical themes and to review geographical literature were issued, including Hager's *Geographischer Büchersaal* (1766-1778) and Büsching's *Magazin für die neue Historie und Geographie* (1767-1793).

The period between 1781 and 1791 was characterised by a general growth in numbers with high peaks in 1782, 1790, and 1791. Periodicals issued the first time in 1782 addressed state related issues, geographical themes in connection with historical and statistical descriptions. They concerned geography and ethnography, ("*Erd- und Völkerkunde*"), general geographical elaborations meant to expand on descriptions in textbooks, information from travel accounts and exploration. The focus was on informing the scholarly and learning public about new geographical findings, as well as on questions of trade and world politics. Other topics of interest were 'old' and 'middle' geography' and were intended to provide, for example, "enlightenment about the middle Ages".[34] One periodical had a regional focus and centred on Hungary in particular. In 1790, two other chorographic periodicals were issued: one on Russia and one on Franconia. Interest in geography and ethnography and knowledge from foreign travels and explorations, particularly concerning overseas (America, Asia, Australia, and Oceania) continued. In addition, interest in historical geography remained, and a first "*Repertorium*" was published – a periodical work summarising the new information of all periodicals concerned with earth description. In 1791, these trends endured, and more journals with chorographic focus appeared, including a new edition on Hungary, one on Franconia, and one on the Prussian states.

In the third period from *c*.1792 – *c*.1800, between one and three periodicals were published, with two small peaks in 1798 and 1800. In 1798 geographical themes were mixed with state issues and regional foci on Westphalia and Prussia. In 1800, political and state geography dominated together with statistics. Attempts were made to capture

[34] Archenholtz (1782), preface.

changes in geography, particularly the political landscape. Between 1801 and 1815, finally, two new themes appeared: a particular focus on Asia, particularly, regional customs and languages, and military geography. Overall, during the third period, more journals were concerned with reviewing geographical publications and monitoring the progress of the science.

Taken as a whole, all journals suggest a strong focus on political and physical geography and less emphasis on mathematical geography. Most journals address a number of different themes, including political and religious landscapes, customs and languages, the relationship between climate, soil, behaviour and health, topographical and geophysical descriptions, vegetation, fauna, natural history (including human history), the development of geography as a science, discussions of educational institutions (often comparing German institutions to others worldwide), improvement of regional agriculture and economy, questions of trade (including slave trade), regional and national statistics, and practical questions (*e.g.*, how to access foreign journals).

Amongst contemporaries, the growth of geographical print was seen as reflecting the ongoing progress in geography, as Canzler suggested in the preface of the first volume of his *Allgemeines Archiv* in 1787: "The gigantic progress which the *Länder- Völker- and Staatenkunde* experienced during the second half of the current century, and which seems to continue, is certainly a distinctive attribute of our times. Everyone strives to acquire and supply news for the purpose of these sciences."[35] For Ehrmann, "[t]aken as a whole, the number of geographical writings and little works [*Schriftchen*] of any kind has, as already indicated, grown to a tremendous amount, and it continues to grow every day, like a snowball that roles down the snow-covered Alpine mountains! – The number of travel accounts and descriptions of lands, regions, and towns is countless!"[36]

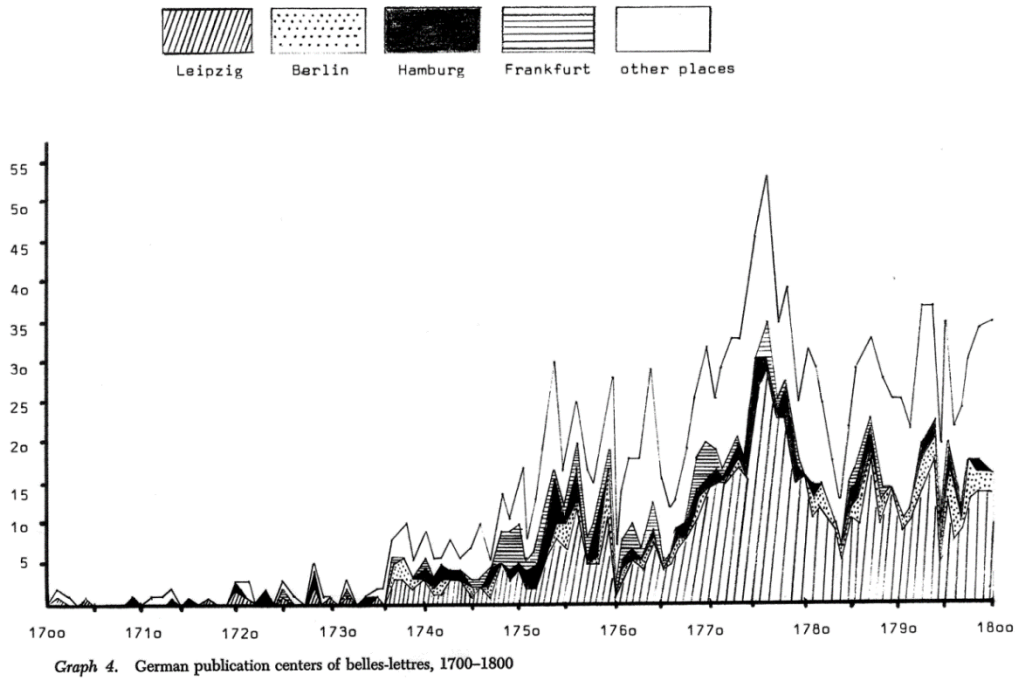
Whilst my research has found 345 books and 109 periodicals published between 1690 and 1815 concerned with geography and/or related themes and sciences, contemporaries were aware of even more – including foreign works and independently

[35] Canzler (1787), preface, i.
[36] Ehrmann (1809), 265-266; see also Hofmayr (1810), 5.

published travel accounts.[37] The scope of geographical literature known to the German scholarly community during the eighteenth century is illustrated in a comment by Albrecht Anton Watermeyer. Watermeyer (1786) stated in the second edition of his *Statistisch-Historisch-Geographisches Handbuch* (*Statistical-Historical-Geographical Compendium*). He considered it relatively easy to compose bulky geographical works due to the "high amount of material" available.[38] In order to avoid the construction of such a "bulky" publication that provided pages of geographical sources, he referred his readers to Farbi's *Geographie für alle Stände* (*Geography for all Estates*) (1786) in which Fabri listed "more than one and a half thousand" "of older and newer books and writings" of "geographical literature."[39] The high numbers of different forms of text that were considered part of or relevant for geography are further reflected in the numbers of pages in geographical texts that were dedicated to the systematised literature lists. Fabri's (1786) and Gatterer's (1775 [1778]) compendia contained lists with more than 50 pages of geographical sources. These high numbers – 1,500 works – exceed the about 300 works I have analysed by far, because German authors included all known foreign works and travel accounts.

That the German print market saw an increase in the number of publications during the eighteenth century and especially during the last decades has been indicated before. Fabian has analysed the numbers of publications in the humanities and literary works, and Welke has shown that periodical works increased in numbers at the end of the century (see figure 5.5 and table 5.9).[40]

[37] For a list, please see the appendix.
[38] Watermeyer (1786), preface, ix.
[39] Watermeyer (1786), preface, ix, fn.
[40] See Fabian (1976) and Welke (1977).




*Graph 4.* German publication centers of belles-lettres, 1700–1800

Figure 5.5. German publication centres of belles-lettres, *c*.1700 – *c*.1800 (Fabian (1976), 129).

| | **1730** | **1750** | **1770** | **1780** | **1795** |
|---|---|---|---|---|---|
| **Historical-political periodicals** | 10 (9) | 5 (4) | 7 (2) | 1 (-) | 25 (14) |
| **Periodical moral writings** | 1 (1) | 7 (-) | 6 (2) | 12 (4) | 3 (1) |
| **Enterntaining and educational periodicals** | 2 (1) | 5 (3) | 30 (14) | 37 (18) | 34 (17) |
| **Women's and fashion magazines** | 1 (1) | - (-) | 2 (-) | 4 (3) | 10 (4) |
| **In total** | 14 (12) | 17 (7) | 45 (18) | 54 (25) | 72 (36) |

Table 5.9. Numbers of German periodicals concerning history and politics, morals, entertainment and instruction, and women and fashion, *c*.1730 – *c*.1795. In brackets are the numbers of periodials that were issued for three or more years. Based on Welke (1977), 73.

Eighteenth-century geographical scholars also reflected on the great amount and increase of publications in the German states. Johann Christoph Friedrich GutsMuths (1759-1839) noted that, "There are so many writings published in our fatherland that, unless a great wood shortage or future omars [*Omaren*] change things, there will be a prize question in the next centuries asking what should be done with all that [literature]."[41] Concerning the scope of geographical literature, it was perceived as high enough to make postulations of literary directories and overviews necessary and justifiable. Several authors and editors of compendia, textbooks, and periodicals offered categorisations of geographical print in order to capture and organise the different genres of print in which geographical knowledge was present. These categorisations also reflect the overall binary purpose of geographical literature: progress in geography and of society. Johann Ernst Fabri classified geographical literature in his *Geographie für alle Stände (Geography for all Estates)* (1786):

> Book science of the new earth description [*Erdbeschreibung*]: The many books which ease the study of geography can be classified along the following categories: 1) Libraries and other works that offer information about geographical works. 2) Systems and textbooks which cover geography in all aspects or at least several parts of it. 3) Geographical dictionaries. 4) Essays and works on individual geographical curiosities in different parts or areas of the world. 5) Travel accounts. 6) Topographies and Chorographies which only describe individual places or regions. 7) Publications of geographical societies. 8) Miscellanies, periodicals, magazines, journals, weekly papers.[42]

Fabri (1786) included pages of literature based on this classification and systematised according to the main geographical sub-sections – mathematical, physical, and political geography – and by time periods – old, middle, new, and newest geography. This was a common mode of classifying and presenting textual forms that informed the study of geography for the imagined learning or scholarly audiences – for personal education and for the construction of (other) systematised geographical print elsewhere.

[41] GutsMuths (1800), preface. His reference to "omars" indicates repect for Arabic rulers and scientists who were imagined to potentially have an influence on the progress of the sciences and the geopolitical situation in Europe and elsewhere.
[42] Fabri (1786), 332.

Similar classifications were offered.[43] In his *Allgemeines Archiv für die Länder-, Völker-, und Staatenkunde, deren Litteratur und Hülfsmittel auf das Jahr 1786* (*General Archives for* Länder-Völker- und Staatenkunde*[1] for the year 1786*) (1787), Canzler divided his review section into "printed work and other news," a "directory of maps, plots, and sketches" concerning "political geography," "mathematical geography," and "physical geography." The part "printed work and other news" was further sub-divided into "lexica," "systems and textbooks" (books for the use in private instruction, schools, colleges, and universities), "geographical and statistical tables," "mixed collections," "magazines and journals," and "travel accounts." Canzler's *General Literary Archives*… (1792-1795) also contained introductions that covered cases of death of geographers or personalities who contributed to the advancement of geographical knowledge, and prize competitions on geographical and historical questions announced by scientific academies in the German states and other European countries, *e.g*., the academies of sciences in Berlin, Munich, Mannheim, Copenhagen, Leyden, Utrecht, and Brussels. Canzler's journal further contained "fragments and essays" (unprinted or own work), a "directory of literature for the year 1794," a "general directory of literature for journalism," and a "general directory of maps."

Such contemporary taxonomies differ slightly from the ones used here. Differences mostly concern contemporaries' inclusions of travel accounts, tables, fragments, geographical "tools," and miscellaneous works. Compendia, textbooks, and periodical works of different kind appeared in almost all contemporary taxonomies. This resembles the overall structure of my findings. Eighteenth-century taxonomies were also written for educative or scholarly purposes. Fabri offered his classification "for the study of geography" in his *Geography for all estates* – for information and learning (including

[43] Johann Christoph Gatterer filled several pages with references of German and foreign literature in his two compendia *Abriß der Geographie* (*Outline of Geography*) (1775 [1778]) and his *Kurzer Begriff der Geographie* (*Short Introduction to Geography*) (1789, new edition 1793). Friedrich Gottlieb Canzler offered a slightly different, yet similar, systematisaion of geographical literature in his periodicals *Allgemeines Archiv für die Länder-, Völker-, und Staatenkunde, deren Litteratur und Hülfsmittel auf das Jahr 1786* (*General Archives for* Länder-Völker- und Staatenkunde *for the year 1786*) (1787) and in his *Allgemeines Literaturarchiv für Geschichte, Geographie, Statistik, Handlung, deren Hülfswissenschaften und Hülfsmittel, Landcharten etc. (General Literary Archives for History, Geography, Statistics, Trade, their supporting Sciences and Tools, Maps etc.* (1792-1795).

self-learning) of the reading public. Canzler's classification was one for scholars and enthusiasts in geography – for all those members of the public interested in writing geography – in advancing the science by producing geographical print. These taxonomies, hence, had a teaching or learning aspect. They were intended to tell the reader which works were necessary to understand geography or to advance geography by writing it systematically.

The construction of classification and systematisation of literary genres was also part of the eighteenth-century understanding of science. Taxonomies were expressions of the encyclopaedic paradigm and character of the eighteenth century.[44] They were manifestations of the underlying wish to comprehend and control the earth in its entirety. Systematisation was considered particularly relevant for geography as it was seen as a "wide field", a "large field" that involved "immense and indescribably large, difficult, and arduous labour."[45] Early in the nineteenth century, slightly different systematisations of literature were offered. One scholar suggested a more limited taxonomy. He divided geographical literature by its proportion of original sources into "1. document works; 2. original works; 3. semi-original works; 4. (patchworks or) compilations."[46] "Document works" concerned works which contained knowledge "useful" for geography; "original works" meant geographical works or travel reports written by "trustworthy" "witnesses;" "semi-original works" referred to geographical works written by sedentary scholars who made use of "original sources"; and compilations were works based on numerous sources "not entirely inaccessible" for other writers.[47] Such taxonomies based on distinctions by degree of "original" or primary materials and sources reflected a growing scholarly differentiation by quality – such as, by original work, and the ambition to demarcate between "scientific" geography and more popular writings. The author of this taxonomy purposely excluded works of "preparatory" knowledge for

[44] Foucault (1974); Schalk (1978), 41; Stichweh (1984), 8; Hammerstein (1989), 279; Decker (1990); Donato and Maniquis (1992); Goethschel *et al*. (1992); Withers (1996a), especially p. 275.
[45] Fabri and Hammerdörfer (1788), preface, and Büsching (1760), preface, 6.
[46] Hofmayr (1810), 6; Ehrmann (1809), 267-270. Ehrmann speaks of "Patchworks or compilations;" Hofmayr, who seems to have copied Ehrmann, speaks only of compilations.
[47] Hofmayr (1810), 6; Ehrmann (1809), 268-269. Ehrmann speaks of "*Patchworks* or *compilations*;" Hofmayr, who seems to have copied Ehrmann, speaks only of compilations.

geography whose numbers he described as "substantial enough." He considered such works essential but did not take them into consideration given the already wide scope of geographical literature.[48]

The growth of geographical print resulted in the need for overviews. Concerning books, Ehrmann and, later, also Hofmayr further bemoaned the lack of an overview directory – a form of meta-literature that would provide a directory of all existing geographical works.[49] Such a "complete critical literature of geography" ought to include "a directory as complete as possible with all existing and known travel accounts, descriptions of lands and places, singular geographical news, treatises and comments – organised, first, geographically (by continents, countries [*Länder*], provinces and peoples), and then chronologically. It further needs to include the value and content of every work or contribution, and the references of the newer works […]."[50] Ehrman suggested that such a directory [*Verzeichnis*] would be "an indispensable Repertorium for a geographer; and could replace the lack of a great library."[51]

These different taxonomies and suggestions of possible directories were attempts to provide an overview for the existing literature, and to identify gaps in the science and reference lists for studying and writing geography. Since literature was produced in numerous places and by many authors and editors across the German states, such directories could serve as central reference points.

### *Scope and popularity*

The growth of geographical print expresses an increasing scholarly and public interest in geographical topics – a growing popularity of geography amongst scholars and the reading public. In 1799, Hartmann wrote, "Thanks to divine providence! Since the beginning of this century, this science [geography], is being greatly perfected, and it is appreciated and beloved by everyone according to its merit."[52] A reviewer of the

[48] Ehrmann (1809), 269.
[49] See Ehrmann (1809) and Hofmayr (1810).
[50] Ehrmann (1809), 275-276, and Hofmayr (1810), 7.
[51] Ehrmann (1809), 276, and Hofmayr (1810), 7
[52] Hartmann (1799), preface, 3a.

*Magazin von merkwürdigen Reisebeschreibungen: aus fremden Sprachen übersetzt und mit erläuternden Anmerkungen begleitet* (1790-1801) wrote in 1793, "Hardly any other work has seen so many volumes in such a short time; but hardly any other field of the sciences bears such beautiful fruits, has so many enthusiasts, and is more cultivated than the geographical one."[53] Another author wrote:

> So when a generally useful science – especially when it becomes the favourite science of entire nations, it is the case with geography – flourishes fast and highly, is fostered from all sides and is raised to the highest degree; nurtured, cherished, and enriched by numerous admirers, brightened up by philosophical heads, carefully cultivated by diligent scholars, competitively embellished and completed by the most enlightened peoples, and even promoted, supported, and amply rewarded by governments of the large states, then its [geography's] advantages develop more and more, so it rises in the most beautiful brightness, and its realm extends until unimaginable vastness so that the strength of a single human being is no longer able to embrace it![54]

As Ehrmann's words indicate, scholarly, public, and sometimes governmental support could help geography become a popular science. Regarding the public interest for geography, the German term "*Lesesucht*," a reading obsession, included geographical print, because it satisfied the public's thirst for stories and reports about unknown and, especially, exotic places and encounters.[55] Enlightenment and education, including self-learning, became accepted values for the growing reading public. The growth in geographical literature finally also reflects the general growth of literacy and, hence, of the reading public.[56] The geographical audience – an audience interested in geography and in reading geographical books and journals – was growing due to growth in literacy and the appreciation of enlightenment and education.

---

[53] Anonymous (1793), 33.
[54] Ehrmann (1809), 255-256; Hofmayr (1810), 1.
[55] The term "*Lesesucht*" occurs in many eighteenth-century texts. See, *e.g.*, Andre (1790), 24. See also Tautz (2006) for a discussion of "*Lesesucht*" particularly in relation to travel accounts (see also the Introduction).
[56] Siegert (1999) has cautioned against the use of numbers concerning rates of literacy in the early modern German states. Regional and confessional differences have been pointed out, as well as differences between men and women. Catholic stated tended to have lower literacy rates, with the lowest one in Bavaria. Literacy rates amongst men seem to have been higher than amongst women. That literacy rates increased in the German states as elsewhere in central Europe is, however, agreed in the literature. Siegert, exemplary, points to numbers by Rudolf Schenda (1970) who has suggested literacy rates for central Europe: 15% in 1770, 25% in 1800, and 40% in 1830 (Seigert (1999), Bödeker and Hinrichs (1999)).

So far, I have shown that the great and growing numbers of geographical print and, particularly, of compendia and textbooks, or books for use of scholars and the educated public reflect the significance of the two progress aims – progress of geography, and of society though geographical learning. These two overarching – "umbrella" – purposes were more complex and debated amongst contemporaries. The aims had to face the reality of print production. These aspects shall be addressed in the next two sections respectively.

## The two main purposes of geographical print: completeness and learning

The twin aims of improvement in geography and in society were the subject of detailed consideration in print. Treatises on progress, journal articles, prefaces, postscripts, and footnotes were used to debate the state of the science and the educational purpose of geography. This section examines these debates by discussing two related ideas: the scholarly aim for 'completeness' of geography, and, secondly, the educational benefits attributed to geography.

### *The aim for 'completeness'*

Scholarly geography was 'writing' geography – the systematic materialisation of geographical knowledge in print. The ultimate and utopian goal of that view was a complete description of the earth – the production of a "complete" and "perfect" geography. Improvement of geography implied to work towards that goal of a complete system of geographical knowledge; it meant "to better cultivate it [geography], and to give a fair degree of completeness in all its parts."[57] A complete geography was a systematisation of geographical knowledge across the different time periods (old, middle, new, and newest geography), and across the three main geographical topics (mathematical, physical, and political geography). The wish for such a complete geography was expressed in numerous ways. Theophil Ehrmann (1783) bemoaned the lack of a geographical "whole" in his *Magazin der Erd- und Völkerkunde* (*Magazine for Geography and Ethnography*): "We have systems of geography, publications in

[57] Otto (1773), first volume and issue, preface.

'*Länderkunde*' [regional and cultural geography] – publications by the greatest contemporary geographers. We have a rich abundance of compendia, special geographies, travel accounts, and similar works, all in uncountable numbers. And yet, there has been no collector who has combined all these parts to one whole [*ein Ganzes*], which could be the foundation for a complete system."[58] The idea of "completeness" was further specified by Johann Georg Müller (1789) in his essay *Versuch über das Ideal einer Erdbeschreibung* (*Approach to an ideal earth description*).[59] Müller envisioned an ideal "critical earth description" in conjunction with a "practical or historical earth description." He argued that reaching "a certain completeness" would require the "compilation, comparison, and examination of the uncountable geographies, topographies and travel accounts we already have – all preparatory work to a Buffon edifice."[60]

Several scholars attempted such a complete work. Ehrmann began a periodical which aimed to collect all relevant published and unpublished texts; however, it ran to only one issue. Other scholars published outlines or structures for a complete geography. Aiming at the construction of a "complete system of geography in all its dimensions" for academic purposes, Canzler suggested following "four points" in the preface of his *Outline of Geography* (1790):

> First, it must address the whole of geography, or describe this science in all its parts and fields. In this way, geography also becomes a university science […] Second, a system of geography for the use in lectures in institutions of higher education has to take exact account of the literature, because that makes geography a university science […]. Third, a system of geography etc needs to commend itself with an appropriate of presentation of materials […]. Fourth, besides presenting the different materials, a system of geography etc. also needs select those materials carefully in relation by carefully drawing a line of separation between geography and *Statenkunde* or statistics, and it needs to find a suitable style.[61]

[58] Ehrmann (1783), preface.
[59] On appreciations of Büsching's role, see for example, Fabri (1786), Müller (1789), and Canzler (1790).
[60] Müller (1789), 124. See Buffon (1780-1785).
[61] Canzler (1790), preface, ii-x.

Johann Christian Gatterer's *Abriß der Geographie* (*Outline of Geography*) (written in 1775, published in 1778) alone had twenty-nine pages of outline for four parts. Gatterer's *Outline* was, however, never completed beyond its second part.

Such concerns were, nevertheless, regarded as ways of systematising geographical knowledge for the use of contemporary and future geographers. Drück (1784) hoped, "At least he [Drück] will go to great lengths so that his work will save future geographers of Asia the trouble to dig in the same shaft again."[62] Research gaps were pointed out, and scholarly journals used to circulate information on these gaps. In a periodical work, Forster and Sprengel (1781) aimed at collecting information concerning "*Länder*- and *Völkerkunde*" (regional geography and ethnography), and bemoaned the lack of a complete German earth description on that subject:

> At times we will further include news from the best historical and geographical descriptions of the less known side-countries [colonies?] of the European empires in other parts of the world, since no one has yet tried to write a complete and exact German Erdbeschreibung [description of the earth] about these parts of the world and about the new discoveries, except for geographers who write for children, and writers such as Salmon, Guthrie and Fenning.[63]

This aim of a systematised and detailed geography was one expression of the enlightenment interest of classifying knowledge.[64] The German case shows in addition the obsession with completeness as a guiding goal, a "project" that was ongoing, to be realised in the future. Geographical print for scholarly use, was regarded as a contribution to the ultimate scholarly aim of a "complete" geography. Scholarly works could contribute to that goal in two ways. First, they could be works that provided "new" or "newly found" information based on scientific criteria, and, secondly, they could provide a framework for writing the desired "complete" geography.

The quality of such a "complete" geographical system and all relevant contributions was a source of concern. The monitoring process happened in treatises written on geography, in reviews and comments in periodicals, and in book prefaces. To capture and reflect on the "gigantic progress which the *Länder- Völker- und*

[62] Drück (1784), preface.
[63] Forster and Sprengel (1781), preface.
[64] Withers (1996a).

*Staatenkunde* experienced during the second half of the current century," these treatises were written to reflect and review the state and progress of geography and progress of German geographical print, and to identify gaps of knowledge.[65] These works were often progress reports that listed, summarised, and commented on various types of geographical publications and on other material forms available, such as new maps and globes. Abraham Gotthelf Kaestner, Paul Jacob Bruns, and Eberhard August Wilhelm von Zimmermann's (1795) *Uebersicht der Fortschritte verschiedener Theile der geographischen Wissenschaften seit dem letzten Drittheile des jetzigen Jahrhunderts bis 1790*, for example, discussed the "developments of the various parts of the geographical sciences since the past third of the eighteenth century until 1790."[66]

Due to the increasing popularity of the discipline, writing about geography became a popular way of generating a source of private income, for which reason, numerous authors entered the field. Late eighteenth-century scholars bemoaned the "abuse" of geographical print and its development as a "whore" ["*Buhldirne*"] "for the sake of the dear bread."[67] Several scholars working on geography saw themselves faced with a deterioration of quality in geographical writings. No other science experienced such a vilification. Ehrmann stressed:

> Since quick book research is easier than digging, scribblers of all kind have made geography their line of business in order to create a job; since these scribblers have described countries they have never seen and about which they have no new knowledge, because of that, a geographer has twice reason to ask himself at every step he takes in his science: whom do you trust?[68]

As a consequence, scholars increasingly felt the need to demarcate between "scientific" geographical print and popular writing. Scholars tried to establish criteria for science-writing – to differentiate between higher and lower quality, and to ensure the scientific progress of geography. At the turn to the nineteenth century, the former became known as writing "critical" geography.

[65] Canzler (1787), preface, i.
[66] Kaestner, Bruns, and Zimmermann (1790).
[67] Ehrmann (1809), 264.
[68] Ehrmann (1803), 423-424.

Christoph Daniel Ebeling distinguished between publications of lower and higher scholarly quality. In a letter to Ezra Stiles on 26 June 1794, Ebeling described the enormous amount of literature published in the German states, and argued "[t]here is much stuff amongst this enormous mass. But also a great deal of good books, mostly in German but also many in Latin."[69] Review journals and periodicals that contained review sections were intended to monitor the quality of German and foreign geographical sources and print. This concerned particularly the quality of content, its presentation, and systematisation. The need to publish "correct" and credible information was expressed by Hager who envisioned a "geography cleansed of many mistakes" in his *Geographical Library* (1764-1778).[70] Büsching's periodical *Wöchentliche Nachrichten* (1773-1788) (*Weekly News*) was the most prominent geographical review journal. Several other periodicals contained sections in which German and foreign publications and maps were reviewed. Canzler's archives (1787 and 1792-95) contained review sections addressing "*Völker*- and *Staatenkunde*, the relevant literature and tools" and "history, geography, statistics, trade, and their ancillary sciences and tools and maps" respectively.

The monitoring of geographical print production also extended to the quality of reviews themselves. Prefaces in journals and books were used to comment on judgements of publications. Büsching argued that his *Wöchentliche Nachrichten* were also intended to provide better quality of information and evaluations that could rectify the "many incorrect, unjust and unfair reports and judgments of books, especially regarding statistical, geographical, and historical ones."[71] Several authors responded to reviews of their work in later editions. Fabri (1787) commented in the prefaces of the second edition of his *Handbuch der neuesten Geographie* (*Compendium of newest Geography*):

> The appendix on pages 329-378 in the first edition has been combined with the first paragraphs of the introduction [in the second edition]. Since so many voices in reviews profoundly wished so, I could not forbear to follow this hint; even if I,

[69] Ebeling in a letter to Ezra Stiles on 26 June 1794. See Ebeling (1794-1818). Note: this letter and all the following by Ebeling are in Ebeling's own English.
[70] Hager (1764), preface.
[71] Büsching (1773), preface, 4-5.

> by the way, based on my little academic experiences still consider it more convenient to explain most of the principal theorems of this introduction only after finishing the geographical course.[72]

Another aspect of criticism concerned the avoidance of duplication. Canzler asked "German authors of travel writings and translators of foreign travel accounts" to take note of already existing travel accounts so that multiple descriptions and "completely unimportant news" could be avoided.[73] Canzler further asked authors to present their writings with a certain structure, "to divide their works into sections according to different countries" in order to ease their further use and compilation.[74]

Another aspect of critique concerned citation practices. Scholars acknowledge that it was commonly known "that a geographical work is developed first by excerpting and transcribing, and only then by comparing, reviewing and re-organising."[75] Referencing was crucial. Canzler (1787) included a special section entitled "Wishes, suggestions, and improvements for the *Länder- Völker- und Staatenkunde*" in which he asked "Germany's journalists" to improve their referencing and citational practices.[76] Proper referencing was a way to demarcate between "scientific" geography and more popular writings. The indication of sources – the transparency and traceability ("*Nachvollziehbarkeit*") of geographical information was a way to indicate the credibility of a geographical publication.

In addition to referencing, the authors' selection and evaluation of the used sources indicated its scientific quality. Scientific geography was critical geography. Ehrmann considered it an essential skill of a geographer or geographical author to write with critical scepticism, to evaluate content, author, method and the conditions of narration (such as political conditions, censorship).[77] Ehrmann considered it further important that a "truly critical geographer" knew "*all* materials" "by their inner and

[72] Fabri (1787), preface, v.
[73] Canzler (1787), 155 and 157.
[74] Canzler (1787), 157.
[75] Gaspari (1797), preface.
[76] Canzler (1787), 155.
[77] See Ehrmann (1803).

outer value."[78] Christoph Daniel Ebeling went even further, and proposed "a new manner of writing geography critically."[79] In a letter to John Eliot from 25 October 1809, Ebeling explained that this would imply having drafts reviewed by local experts (scholars living in the respective area of description) before publication. Ebeling described the new German "plan" of writing geography scientifically and "critically": "It is the following: (1) To describe each country from all the printed geographical books published in that country itself, critically examined, compared and (2) by sending sketches of our descriptions to friends in the principal cities of each country to revise them […]."[80]

Emphases on writing geography 'critically' and criticism of uninformed judgements were ways of demarcating scholars from the educated public. Informed judgement of scholarly work was reserved to members of the imagined German 'republic of letters,' and included future members (see chapter 3). Uninformed judgments could have consequences for one's reputation and commercial success. Reputational and economic damage were to be avoided by a clear distinction of scholarship and its competences.

This scholarly identity did not prevent the feeling of competition between scholars. Canzler (1790) explicitly highlighted Gatterer's and Fabri's compendia as important and almost "complete," yet insufficient, publications in order to place his *Outline of Geography*:

> A publication as complete system about geography, especially the newer geography, in all its dimensions, for the use in lectures, at higher educational institutions, especially academies, has long been a pressing need which was not satisfied by the existing systems. Gatterer's masterpiece [*Outline of Geography*, 1775] makes first epoch; and after him [Gatterer], a piece for lectures appeared: J. E. Fabri, now professor in Jena, [and his *Compendium for the Newest Geography* 1784-1785 and later editions]. It is by far not my intention to judge these two works, since the audience has already best knowledge of the two.[81]

[78] Ehrmann (1809), 271 and 261 (emphasis in original).
[79] Ebeling in a letter to Bentley, 12 August 1807. See Ebeling (1925 [1794-1817]).
[80] Ebeling, letter to Eliot, 25 Oct. 1809. See Ebeling (1925), 393.
[81] Canzler (1790), preface, ii-iii.

Comparison and reference to existing works was a common place. Canzler (1792) announced in his *General Literary Archives* that: "The whole piece will once be a useful pendant to the Registry about German newspapers issued by some anonymous authors and edited by Magister Ersch in Jena; it [Canzler's *General Literary Archives*] will however have the advantage that it also extends to foreign journals and miscellaneous and very heterogeneous works, and that it frequently adds excerpts of the most important issues as well as some short comments."[82] Ersch (1790) saw his "*Repertorium*" as "a sort of supplement to Meusel's *Bibliotheca historica*, Stuck's directory of travel accounts and other similar works."[83]

Only a fraction of geographical print was solely intended to describe the progress of geography and to work towards a complete geographical system. The great majority of print was produced for learning practices and private consultation. A particular kind of 'completeness' was sought in print for learning purposes. Completeness was audience-related, and only future editions could be 'complete' – 'perfect' – for their purpose. Evaluations expressed in reviews and the economic success of book sales indicated the present and future (potential) value of such 'completeness' or 'perfection' of a publication. Many authors argued in the prefaces of their first editions that only further editions could be (more) complete. Canzler stated in the preface of his *Abriß der Erdkunde* (*Outline of Geography*) (1790), "Perhaps I am granted some leniency regarding the incompleteness whose vestiges this whole work still contains, if I name the Whole [text] an attempt which can only be freed of stains and be given completion in the second edition and after listening to the voices of the audience."[84]

### *The benefits of geographical learning*

Geography was first and foremost regarded as "a generally useful science" and as a "school science."[85] Treatises on the progress of geographical education, articles in

[82] Canzler (1787), part "Literaturarchiv für Journalistik und Miscellanous", 1-2.
[83] Ersch (1790), preface, vi.
[84] Canzler (1790), preface. Similar comments are expressed in the prefaces of first editions by several authors, including Watermayer (1782), Hammerdörfer and Kosche (1784), and Fabri (1786).
[85] Ehrmann (1809), 255-256; Hofmayr (1810), 1.

journals, and preface, postscripts, and footnotes elaborated on the benefits of geographical learning, and centred on four overall benefits. First, geographical knowledge – the possession of geographical facts – was regarded as beneficial for living life as a good human being, that is, for being a 'good' enlightened person and often also a 'good' Christian. It was "generally useful and necessary" in that it supported various every-day and professional activities, and eased the study of other realms of knowledge. Second, some authors considered geography a support for Christian faith. Third, it generated polite social behaviour and patriotic sentiments. Finally, geography was used to generate 'good' moral behaviour.

The general benefits of geography were highlighted repeatedly and in many forms of geographical print. Norrmann's explicit emphasis on geography's universal utility for every citizen at every age and for every activity reflects the fundamental character ascribed to geographical knowledge: "The utility of geography is extremely general. To know one's dwelling place is the first and worthiest matter of human curiosity. Geography is necessary for all estates, for all relations and occupations; it is necessary and useful for every age and every kind of knowledge."[86] Westenrieder tried to advocate the utility of geographical knowledge not only by describing it as useful and necessary but also by calling its acquisition a "life duty." Westenrieder argued, "so it always remains the duty of every human being – if he [sic] is not completely without all feeling, without all abilities, – always the life duty of a citizen to ask himself where he is, with whom he [sic] lives here, and to get to know, search, and use the things that exist."[87]

Many authors depicted the activities and professions for which geographical facts were not only considered useful, but also fundamental. Normann highlighted the benefits of geographical knowledge for those citizens working "in the sciences, in trade, civil service, and other affairs."[88] Anton Friedrich Büsching, the widely read author of numerous geographical publications, also elaborated on the utility of geographical knowledge and learning. Büsching devoted a section entitled 'Of the utility of

[86] Norrmann (1785), introduction, vi.
[87] Westenrieder (1776), preface, 4.
[88] Norrmann (1785), preface, iii.

geography' in the first part of his well-known compendium *Neue Erdbeschreibung* (*New earth description*) (1754-1792).[89] In that section, Büsching argued, "In short, Geography is a science not only useful for all but indispensibly [sic] necessary to some persons."[90] Büsching highlighted the sovereign, the statesman (such as ministers of the state, generals of armies), the theologian, the natural philosopher, the merchant, and the traveller as professions that depended most on geographical knowledge.

Second, geographical knowledge was seen as beneficial for strengthening one's faith. Anton Friedrich Büsching, saw geography's greatest purpose in its demonstration of the existence and greatness of the Abrahamic God. Büsching argued, "a good earth description be [sic] an important explanation of the doctrine of the divine providence" and "the knowledge of God, the creator and preserver of all things, is eminently promoted by this science."[91] Büsching believed geographical and knowledge and research to lead to gnosis – a belief he had inherited from his teacher, the Pietist theologian August Hermann Francke (1663-1727) in Halle.[92] Francke had strengthened pietism, a continental Protestant reform movement after the Thirty Years War (1618-1648) aiming to return to the aims of the Reformation.[93]

Büsching's link between geographical knowledge and the affirmation of Judeo-Christian faith was shared by several other authors. A significant number of Protestant pastors carried out geographical instruction and research: these included, in addition to Büsching, Eberhard David Hauber, Johann Reinhold Forster, and Johann Gottfried Herder.[94] Whilst Büsching placed the greatest emphasis on divine revelation through

[89] See, *e.g*., Büsching (1962), 17-23. Büsching's *Neue Erdbeschreibung* was no only widely read in the German states but was also translated into several other languages. It was published in English as '*A New System of Geography'*. Different English translations appeared, such Patrick Murdoch's translation (1762-) and Daniel Fenning and Joseph Collyer's (1766-1786). Also the London-based Scottish historian and geographer William Guthrie's (1795) *A New System of Modern Geography* was said to be based – at least in parts – on Büsching's work (see Sher 2006, 156, fn. 130). The *Neue Erdbeschreibung* was also translated into numerous other European languages, such as French, Italian, Spanish, Dutch, and Russian.
[90] Büsching, *New earth description* (1754), 25, see also Büsching (1762), 5.
[91] Büsching (1762), 1, and Büsching (1754), 29.
[92] 'Gnosis' concerns a particular kind of cognition conceptualised in several belief systems and religions. It is often considered as a "liberation" or "redemption" of the human being from earthly constraints by insight in the connection of his/her soul or spirit with an unearthly realm of freedom or peace (Rudolph (2005), 7).
[93] See Beck (1982), 52, 106; on Pietism see Brecht (1995) and Brecht *et al*. (2006).
[94] See Plewe (1986), 26-48.

geographical knowledge, later authors often only mentioned the Abrahamic God in their prefaces but did not necessarily stress a connection between geography and faith. In the Catholic parts of the empire, in contrast, the link between geographical knowledge and belief remained explicit throughout the century, even after the abolition of the Jesuit order in 1773 in the Bavarian states. In serving religion and faith, geographical knowledge was linked to an improvement of peaceful and harmonious social behaviour.

Geographical learning was, thirdly, considered necessary for the improvement of social and patriotic behaviour. Appropriate social interaction required the understanding of contemporary and past literatures. Geographical knowledge was felt to support "the nowadays so widespread activity of reading and the often thereupon built social conversations in which almost all men take part, including the lowest man. They all find daily new nourishment in the great amount of newspapers, journals, flyers, novels or romanticised stories, pocketbooks of all kinds, folk literature, improved calendars etc."[95] Being able to read and to comprehend contemporary and past literatures was seen as both useful and necessary for the informed public for two main reasons: one's state of erudition was, first, an indicator for personal and societal enlightenment and engagement in self-education. It was a signification of personal development and an individual's quest for it. Second, engagement with scientific and geographical literature enabled one to take part in and to contribute to polite social conversations in private and in public spaces and places. Making sense of the *en vogue* literature required more than alphabetisation. Its full comprehension presupposed scientific and geographical knowledge.

Amongst the different realms of knowledge, geographical learning became of increasing importance, as the German reading public developed a keen interest in travel literature. The widespread German "*Lesesucht*," the German obsession with reading in general as it was described by contemporaries, particularly included travel accounts. This trend has prompted some scholars to speak of a "travelogue mania" in the German states during the second half of the eighteenth century.[96] The public thirst for stories and

[95] Gaspari (1800), 10.
[96] Tautz (2006), 164.

reports about unknown and, especially, exotic places and encounters was satisfied by a growing literary market. Travel accounts were published in different forms: in books and in periodicals, often as parts, excerpts, and summaries. As the comparatively small number of German travellers and explorers yielded an unsatisfying production of the sought-after literature, many translations, particularly, from English, French, and Spanish were published.

The pronounced public interest in past and contemporary travel accounts made travel literature a considerable part of social conversations. Geographical knowledge became useful and necessary for conversations amongst members of all estates. Some writers argued that the public interest in travel literature and the consequential significance of geographical knowledge were particular matters of their time. They perceived the later eighteenth century as an era especially marked by expeditions and travelling:

> We live in an era which rests on the general conviction of the imperative of a complete knowledge of the earth; we live in an era, the like has never existed before and will never exist again when its purpose has been fulfilled. We live in the era of expeditions.[97]
>
> […]
> And exactly these travelogues are now the reading matter and the topic of discourse of all civilised estates. One cannot read them just with reason, nor talk about them without being exposed and ridiculed, if one does not bring a certain level of geographical knowledge to the book and the conversation. The bon ton requires that, even if lack of reasoning, comfort, and prejudice object to it. It is disgraceful to be illiterate in geography in such an era.[98]

Some authors also pointed to the connection between interest in political geography and social conversations. The changing political landscape was discussed in newspapers, magazines, and journals – the multipliers of public opinion.[99] "We live in an era of political circumstances," Gaspari stressed and argued that these fermentations would fill "the political papers for many years and promise to be of importance for many years

[97] Gaspari (1800), 10-11.
[98] Gaspari (1800), 12-13.
[99] See Hentschel (1999), 154, who points to periodical publications, particularly, review journals as "journalistic multipliers of opinion" ("*Meinungsmultiplikatoren*").

coming.[100] Sociability, the ability to carry out harmonious and peaceful social gatherings and conversations, was considered an expression of civilised and peaceful public and private interaction – 'a key concept in Enlightenment thought', as one scholar has described it.[101] Private and public social discourse did not only have a geography but geographical knowledge was also a means and generator of such conversations.[102] Effective geographical learning and teaching ought to generate self-motivated reading of useful publications, and "ideally those which are part of geographical knowledge and knowledge of human nature."[103]

Geographical knowledge was further seen to be helpful in promoting patriotic behaviour. Being familiar with the geography of one's homeland ('*Vaterland*') – the Holy Roman Empire and one's state and imperative circle – was considered supportive for the development of patriotic sentiments.[104] Geographical knowledge and learning were considered "to help Germans of all estates to acquire a correct and precise knowledge of their homeland, to acquaint them with the merits of their homeland and to thereby inspire a reasonable national pride and patriotism."[105] Patriotism was beneficial for improving the individual's will and motivation to contribute his or her life to activities useful to society.

As a fourth benefit of geographical learning, an improvement of aesthetic appreciation and moral behaviour was highlighted. Johann Gottfried Herder advocated learning and teaching geography in schools by emphasising the potential of geographical knowledge for the improvement of the human character and society. A greater appreciation of the "true and the beautiful" through the experience of the sublime joy deriving from this "music of the mind" also affected the student's soul and his sensitivity towards other human creatures.[106] Herder was not alone with these

[100] Gaspari (1800), 13.
[101] See Gordon (2003), 96.
[102] See, *e.g.*, Gordon (2003) and Withers (2007).
[103] Norrmann (1785), preface III.
[104] See below for an introduction to the German political system and the role of political 'states' and 'circles.'
[105] Norrmann (1785), preface, viii-xi.
[106] Herder (1784), 63.The German concepts of sympathy and empathy – especially as expressed by Herder and Kant –, their relation to aesthetics and geographical learning, and their connection with thoughts of

convictions. Lorenz von Westenrieder stressed that with geographical knowledge, one learned "to think just and lovingly of the whole world" (see chapter 6).[107]

The purposes of geographical knowledge included universal, economic, professional, confessional, social and patriotic, and aesthetic and moral benefits. The purposes were related to particular places and spaces: professional spaces such as offices, markets, ships, and churches, in spaces of social interaction, such as libraries, bookshops, public gardens, markets, and private homes and salons, as well as classrooms and lecture halls. Geographical learning and instruction was seen as relevant for forming educated members of society able to take part in forming an educated, social, and interested, hence, enlightened and civilised German public.[108]

## The places and conditions of geographical print production

This section examines the places and conditions of print production. I begin by examining the spatiality of authorship and editorship and the imagined location of targeted audiences. I then address the places of publishing and printing, and, thus, change focus from the actors to the forms (books and periodicals), in order to address both perspectives of the process of print production. I continue by discussing the conditions for scholarly print production and for print in use. I shall argue that geographical print production reflected 'Germany's' political, religious, and intellectual fragmentation. To transcend these spatial differences, scholars increasingly thought of geography as a collaborative enterprise.

### *Places and spaces of authors, editors, publishers, and targeted audiences*

Geographically, my research shows that authors, and editors were predominantly located in the Protestant German states. Book writing occurred in 99 towns, journal editing in 32

---

foreign scholars – most notably in Britain, such as David Hume, Adam Smith, Thomas Reid, Francis Hutcheson, and Anthony Ashley Cooper, the Third Earl of Shaftesbury – and will be discussed in chapter 6 on geography in education (see Oz-Salzberger (1995) and Frazer (2010)).

[107] Westenrieder (1776), preface, 9.

[108] See Habermas (1989) on the development of a German public sphere during the eighteenth century. See Phillips (2012) for different German publics. On sociability, see Gordon (2003).

towns.[109] In most towns, between one and four geographical authors or editors were to be found. In a few places, there was a stronger concentration of authors and editors. For books, this included Berlin (22), Göttingen (13), Nuremberg (9), Halle (9), Leipzig (8), Jena (8), Königsberg (6), and Magdeburg (6). Concerning journals, Göttingen and Halle stood out with eight and five journals edited there respectively (see tables 5.10-5.13).

These places were centres of academic progress. Berlin as the capital of Prussia did not have a university until 1810, but an academy of science – the '*Berliner Societät der Wissenschaften*' founded in 1700 (see chapter 3). The comparatively higher numbers of books written there might be explained with the Prussian emphasis on improving schooling and education, indicated in the introduction of compulsory schooling in 1763.[110] Göttingen, Halle, and Jena were reform universities following and practicing enlightenment virtues. Leipzig also adopted progressive academic research mentalities.[111] Göttingen has been announced before as hub of geographical interest. Widely-read scholars such as Anton Friedrich Büsching, Johann Christian Gatterer, August Ludwig von Schlözer, and Friedrich Gottlieb Canzler worked in Göttingen on numerous geographical topics, particularly general geography and new political geography. Nuremberg was once the seat of the Cosmographical Society – the first geographical society – before many of its members accepted academic offers at the university in Göttingen.[112] Nuremberg was also a centre of historical geography, especially in the person of Johann David Köhler (1684-1755) early in the century (books in 1724, 1728, 1730) and Conrad [Konrad] Mannert (1756-1834) later on (books in 1788 and 1798). Königsberg was the working place of Immanuel Kant, where his physical geography was compiled by his students and based on his oral lectures. Two different and competitive versions were issued.[113] In addition, Gotthilf Christian Reccard and Johann Heinrich Jacobi produced geographical textbooks in Königsberg. In Magdeburg,

[109] Places of writing and editing have been identified via authors' and editors' comments in prefaces, biographies, most notably the *Allgemeine Deutsche Biographie*, and necrologies, most notably Schmidt (1825). Places of publishing and printing have been retrieved from the books and periodicals themselves.
[110] Melton (1988).
[111] Kühn (1939); Feuerstein-Herz (2004).
[112] On the prominent role of Göttingen, see Kühn (1939) and Plewe (1986).
[113] Friedrich Theodor Rink (1802) and Johann Jakob Vollmer (1801-1805). See Elden and Mendieta (2011).

books were almost only written early in the century, and authors such as Benjamin Hederich (1675-1748) worked at the Kloster Berge, a centre of Pietism in the eighteenth century.[114] One late eighteenth-century exception was Johann Friedrich Lorenz (1738-1807) who wrote a book on "astronomical science" including geography in 1797.

Places where five books or journals were written included Vienna, Stuttgart, Dessau, and Hamburg. Vienna was the capital of the empire and the Austrian state and dominantly Catholic. Geographical works written there – often compendia and textbooks – tended to be editions or compilations of works first produced in the Protestant realms. Primary research mostly concerned the Austrian state itself. Only early in the nineteenth century, journals on political geography with primary materials were edited. Stuttgart was the place of the '*Hohe Karlsschule*,' a military academy where Friedrich Ferdinand Drück and Friedrich Christian Franz worked as history and language teachers. Franz wrote a textbook on general and regional geography; Drück produced a system on Asia, which became part of the continuation of Büsching's *Neue Erdbeschreibung* (1754-1792). Also Johann Christian Volz worked in Stuttgart; he produced a textbook for the local grammar school. In Dessau, focus was on rather practical and state matters. August Friedrich Wilhelm Crome (1753-1833) wrote several books on trade geography, on local 'products' and calculations of population sizes and state areas. Other books included gazetteers for scholarly and educative use, and a chorography of principality of the Anhalt. Hamburg was a '*Bürgerrepublik*,' a city republic and, due to its geographical position, an important city for German and international trade.[115] Geographical works written and edited in Hamburg concerned general geography, trade geography, and the Americas. The key authors on the latter two topics were Christoph Daniel Ebeling, and Johann Georg Büsch. Concerning general geography, Johann Hübner was an established scholar earlier in the century, later on Gerhard Philipp Heinrich Norrmann, Hermann Schlichthorst became recognised scholars. Besides these small geographical centres, writing and editing of geographical print was undertaken in towns spread across the German states.

[114] Herrmann (1982).
[115] Schramm (1964).

| | **Books – places of authors and editors** | |
|---|---|---|
| 1 | Places of author unknown | 23 |
| 2 | Berlin | 22 |
| 3 | Anonymous | 14 |
| 4 | Göttingen | 13 |
| 5 | Nuremberg (including Altdorf and Ensdorf and Creglingen) | 9 |
| 6 | Halle | 9 |
| 7 | Leipzig | 8 |
| 8 | Jena | 8 |
| 9 | Königsberg (Prussia, today Russia) | 6 |
| 10 | Magdeburg | 6 |
| 11 | Vienna (Capital of the Holy Roman Empire, Habsburg today Austria) | 5 |
| 12 | Stuttgart | 5 |
| 13 | Dessau | 5 |
| 14 | Hamburg | 5 |
| 15 | Weimar | 4 |
| 16 | Munich | 4 |
| 17 | Erlangen | 4 |
| 18 | Erfurt | 4 |
| 19 | Merseburg (including Altenburg) | 3 |
| 20 | Stettin (Prussia, today Poland) | 3 |
| 21 | Kiel | 3 |
| 22 | Dresden | 3 |
| 23 | Brunswick | 3 |
| 24 | Augsburg | 3 |
| 25 | Helmstedt | 2 |
| 26 | Wolfenbüttel | 2 |
| 27 | Tübingen | 2 |
| 28 | Strasburg | 2 |
| 29 | Stade | 2 |
| 30 | Schleusingen | 2 |
| 31 | Gotha | 2 |
| 32 | Copenhagen (Denmark) | 2 |
| 33 | Chemnitz (including Eisenstock) | 2 |
| 34 | Hof | 2 |
| 35 | Hildesheim | 2 |
| 36 | Frankfurt/Main | 2 |
| 37 | Greifswald (Sweden until 1815, today Germany) | 2 |
| 38 | Salzburg (independent city, today Austria) | 2 |
| 39 | Pressburg (Habsburg, today Slovakia) | 2 |
| 40 | Hermannstadt (Habsburg, today Romania) | 2 |
| 41 | Zell in Oberösterreich (Habsburg, today Austria) | 1 |
| 42 | Thamm in Württemberg | 1 |
| 43 | Stendal | 1 |
| 44 | Stadthagen | 1 |

| | | |
|---|---|---|
| 45 | St. Petersburg (Russia) | 1 |
| 46 | Schweidnitz (Habsburg, 1741 Prussia, today Poland) | 1 |
| 47 | Glogau near Schweidnitz (Habsburg, 1741 Prussia, today Poland) | 1 |
| 48 | Schaffhausen | 1 |
| 49 | Rostock | 1 |
| 50 | Querfurt | 1 |
| 51 | Plauen | 1 |
| 52 | Pforta (near Naumburg) | 1 |
| 53 | Neustadt Brandenburg | 1 |
| 54 | Marburg | 1 |
| 55 | Mainz | 1 |
| 56 | Liegnitz (1742 Prussia, today Poland) | 1 |
| 57 | Kusel (near Mannheim) | 1 |
| 58 | Karlsruhe | 1 |
| 59 | Iferten (Yverdon-les-Bains, near Neuchatel and Lausanne, Switzerland) | 1 |
| 60 | Hohenstein-Ernstthal | 1 |
| 61 | Herford (near Bielefeld) | 1 |
| 62 | Hannover (including Bückeberg) | 1 |
| 63 | Hamburg (including Altona) | 1 |
| 64 | Friedheim | 1 |
| 65 | Eisleben | 1 |
| 66 | Eisenach | 1 |
| 67 | Danzig (1793 Prussia, today Poland) | 1 |
| 68 | Buchholz (near Bielefeld) | 1 |
| 69 | Breslau (1740s Prussia, in 1763 Habsburg, today Poland) | 1 |
| 70 | Barby (United States) | 1 |
| 71 | Aurich | 1 |
| 72 | Arnstadt | 1 |
| 73 | Anspach (Ansbach) | 1 |
| 74 | Potsdam | 1 |
| 75 | Stolberg, near Aachen | 1 |
| 76 | Peest in Pommern | 1 |
| 77 | Asseheim in der Wetterau, near Berlin | 1 |
| 78 | Schnepfenthal | 1 |
| 79 | Horstdorf und Riesigk | 1 |
| 80 | Paris (France) | 1 |
| 81 | Bialystok (Poland, 1796 Prussia, 1807 Russia, today Poland) | 1 |
| 82 | Prague (1744 Prussia, today Czech Republic) | 1 |
| 83 | Wechmar, near Rudolstadt | 1 |
| 84 | Afferde near Hammeln | 1 |
| 85 | Schweinfurt | 1 |
| 86 | Seesen, near Goslar and Brunswick | 1 |
| 87 | Kempten | 1 |
| 88 | Eutin | 1 |
| 89 | Themar, near Hildburghausen | 1 |
| 90 | Riga (Lithuania) | 1 |
| 91 | Eibenstock | 1 |

| | | |
|---|---|---|
| 92 | Buchsweiler, Alsace | 1 |
| 93 | Lauf, near Nuremberg | 1 |
| 94 | Friedland in Silesia (today Poland) | 1 |
| 95 | Ansbach | 1 |
| 96 | Graz | 1 |
| 97 | Osnabrück | 1 |
| 98 | Ettal | 1 |
| 99 | Klein-Wangen | 1 |
| 100 | Bilin, Bohemia (1744 Habsburg, today Czech Republic) | 1 |
| 101 | Lingen | 1 |
| **102** | **Sum of places** | **270** |

Table 5.10. Places of authors and editors of German geographical books, *c*.1690 – *c*.1815 (99 places).[809] Colour code: orange: foreign towns/cities in Europe; yellow: foreign towns/cities in overseas; blue: Catholic cities; green: places where main religion changed due to political events.

[809] Places where books were written or edited, that is, the authors' and editors' places of residence. Since several authors wrote multiple books, the sum of places is smaller than the number of periodicals.

| | **Journals - places of authors and editors** | |
|---|---|---|
| 1 | Anonymous | 9 |
| 2 | Göttingen | 8 |
| 3 | Halle | 5 |
| 4 | Berlin | 4 |
| 5 | Hamburg (including Altona) | 4 |
| 6 | Nuremberg | 3 |
| 7 | Dresden | 2 |
| 8 | Marburg | 2 |
| 9 | Jena | 2 |
| 10 | Kiel | 2 |
| 11 | Brunswick | 2 |
| 12 | Erlangen | 2 |
| 13 | Vienna (Capital of the Holy Roman Empire, today Austria) | 2 |
| 14 | St. Petersburg | 2 |
| 15 | Chemnitz | 2 |
| 16 | Kassel | 1 |
| 17 | Strasbourg | 1 |
| 18 | Frankfurt/Oder | 1 |
| 19 | Munich | 1 |
| 20 | Stuttgart | 1 |
| 21 | Mainz | 1 |
| 22 | Gotha | 1 |
| 23 | Weimar | 1 |
| 24 | Schnepfental | 1 |
| 25 | Bielefeld | 1 |
| 26 | Buchholz in Minden | 1 |
| 27 | Dortmund | 1 |
| 28 | Pressburg (Habsburg, today Slovakia) | 1 |
| 29 | Cannstadt (near Stuttgart) | 1 |
| 30 | Riga (Lithuania) | 1 |
| 31 | Zeitz/Leipzig | 1 |
| 32 | Coburg | 1 |
| 33 | Schwabach | 1 |
| **34** | **Sum of places** | **69** |

Table 5.11. Places of authors and editors of German geographical periodicals, *c*.1690 – *c*.1815 (32 places).[810] Colour code: orange: foreign towns/cities in Europe; blue: Catholic cities.

From the perspective of authors and editors, the targeted audiences were imagined in all German-speaking states or in particular regional, local, and institutional spaces. The size of the intended audience depended on the purpose of the book or periodical. Publications concerning the progress of science were intended for all interested German-speaking scholars and "enthusiasts" of geography. General public learning and consultation were most often targeted at the entire German reading and learning public. Overall, most geographical scholars thought across the political and religious fragmentation of the German states, and imagined a German republic of letters and a German (reading) public.

Publication for private and school education, on the other hand, was often primarily written for local or regional use. This was related to the understanding of geographical instruction being different in content and method depending on the student's future profession and the place and type of school (see chapter 6). In addition, state politics determined education, including geographical education.[811] Geographical school books with a framework for a particular learning audience could, however, also serve as framework for teaching practices elsewhere. In that sense, they were also imagined to be of use for teachers and learners in other German schools and states – in the "*deutsches Publikum*" – the German public.[812] A few authors and editors, whose books or periodicals centred on particular German states or duchies, such as Prussia, Saxony, Bavaria, or Magdeburg, primarily addressed, as well, regional or local audiences, yet, with the general German-speaking public in mind.

Looking at centres of publishing and printing, geographical print production happened in towns spread across the German states, and, in that way, resembles the spatiality of authors and editors. Centres of publication were, however, slightly more

[810] Places where periodicals were edited, that is, editors' places of residence. Since several editors edited multiple periodicals, the sum of places is smaller than the number of periodicals.
[811] Benner and Kemper (2009).
[812] Fabri (1808).

concentrated than places of authorship and editorship. Leipzig had a clear outstanding position as the largest centre of geographical print production with 79 books and 27 periodicals in the period *c*.1690 – *c*.1815. Berlin, Nuremberg, Halle, Frankfurt/Main, Vienna, Hamburg, Erfurt, Göttingen, Munich, and Weimar were also centres for publishing and printing geographical books and periodicals (see tables 5.12.-5.13). Geographical print reflected the overall German landscape of book production at the time. Leipzig had become the leading German 'book' city, whilst numerous middle-size and smaller centres remained relevant. As there were many small urban centres of population, there remained multiple centres of book production (see chapter 3).

Overall, I want to suggest that the spatiality of authors, editors, and places of geographical publication reflects the empire's fragmented political and religious structures of the empire. The empire was characterised by a diverse urban landscape made up of multiple small and middle-size towns (see chapter 3).

| | **Books – places of publishing and printing** | |
|---|---|---|
| 1 | Leipzig | 79 |
| 2 | Berlin | 43 |
| 3 | Nuremberg | 23 |
| 4 | Halle | 21 |
| 5 | Frankfurt/Main | 17 |
| 6 | Vienna (Capital of the Holy Roman Empire, Habsburg today Austria) | 16 |
| 7 | Hamburg (including Altona) | 15 |
| 8 | Erfurt | 11 |
| 9 | Göttingen | 10 |
| 10 | Munich | 10 |
| 11 | Stuttgart | 9 |
| 12 | Königsberg (Prussia, today Russia) | 7 |
| 13 | Augsburg | 7 |
| 14 | Breslau (1740s Prussia, in 1763 Habsburg, today Poland) | 6 |
| 15 | Tübingen | 6 |
| 16 | Dresden | 6 |
| 17 | Salzburg (independent city, today Austria) | 5 |
| 18 | Braunschweig | 4 |
| 19 | Stralsund | 4 |
| 20 | Weimar | 4 |
| 21 | Breslau (1740s Prussia, in 1763 Habsburg, today Poland) | 4 |
| 22 | Stettin (Prussia, today Poland) | 4 |
| 23 | Ulm | 3 |
| 24 | Jena | 3 |
| 25 | Copenhagen | 3 |
| 26 | Hof | 3 |
| 27 | Lemgo | 3 |
| 28 | Altona, near Hamburg | 3 |
| 29 | Hildburghausen | 3 |
| 30 | Pressburg (Habsburg, today Slovakia) | 3 |
| 31 | Helmstedt | 2 |
| 32 | Chemnitz | 2 |
| 33 | Strasbourg (France, status of an independent city) | 2 |
| 34 | Bayreuth | 2 |
| 35 | Dessau | 2 |
| 36 | Riga (Lithuania) | 2 |
| 37 | Amberg | 2 |
| 38 | Prague (1744 Prussia, today Czech Republic) | 2 |
| 39 | Arnstadt | 2 |
| 40 | Graz (Habsburg, today Austria) | 2 |
| 41 | Hermannstadt (Habsburg, today Romania) | 2 |
| 42 | Brandenburg | 1 |
| 43 | Homburg | 1 |
| 44 | Erlangen | 1 |

| | | |
|---|---|---|
| 45 | Hannover | 1 |
| 46 | Kempten | 1 |
| 47 | Frankfurt/Oder | 1 |
| 48 | Gotha | 1 |
| 49 | Ansbach (Anspach) | 1 |
| 50 | Wolfenbüttel | 1 |
| 51 | Iferten (Yverdon-les-Bains, near Neuchatel and Lausanne, Switzerland) | 1 |
| 52 | Regensburg | 1 |
| 53 | Brieg (Habsburg, 1742 Prussia, today Poland) | 1 |
| 54 | Linz (Habsburg, today Austria) | 1 |
| 55 | Reutlingen | 1 |
| 56 | Barby (United States) | 1 |
| 57 | Neustadt/Aisch | 1 |
| 58 | Bremen | 1 |
| 59 | Danzig (1793 Prussia, today Poland) | 1 |
| 60 | Mühlhausen | 1 |
| 61 | Langensalza | 1 |
| 62 | Rostock | 1 |
| 63 | Liegnitz (1742 Prussia, today Poland) | 1 |
| 64 | Stolberg, near Aachen | 1 |
| 65 | Glückstadt | 1 |
| 66 | Elberfeld | 1 |
| 67 | Eisenberg | 1 |
| 68 | Glogau near Schweidnitz (Habsburg, 1741 Prussia, today Poland) | 1 |
| 69 | Paris (France) | 1 |
| 70 | Cleve | 1 |
| 71 | Amberg | 1 |
| 72 | Altenburg | 1 |
| 73 | Schleswig | 1 |
| 74 | Schweinfurt | 1 |
| 75 | Hildesheim | 1 |
| 76 | Schweidnitz (Habsburg, 1741 Prussia, today Poland) | 1 |
| 77 | Laubach/Laibach in Krain (Habsburg, today Slovenia) | 1 |
| 78 | Basel (Switzerland) | 1 |
| 79 | Marburg | 1 |
| 80 | Giessen | 1 |
| 81 | Bamberg | 1 |
| 82 | Dillingen | 1 |
| 83 | Passau | 1 |
| 84 | Münster | 1 |
| 85 | Greifswald (Sweden until 1815, today Germany) | 1 |
| 86 | Cölln/Spree | 1 |
| 87 | Magdeburg | 1 |
| 88 | Hersfeld | 1 |
| **89** | **Sum** | **404** |

Table 5.12: Places of geographical book publishing and printing, *c*.1690 – *c*.1815 (88 places).[813] Colour code: orange: foreign towns/cities in Europe; yellow: foreign towns/cities in overseas; blue: Catholic cities; green: places where main religion changed due to political events.

[813] Numbers of places are higher than those of geographical books, since books were occasionally printed and sold in more than one place.

| | **Journals – places of publishing and printing** | |
|---|---|---|
| 1 | Leipzig | 27 |
| 2 | Berlin | 11 |
| 3 | Hamburg | 10 |
| 4 | Vienna (Capital of the Holy Roman Empire, Habsburg, today Austria) | 9 |
| 5 | Halle | 7 |
| 6 | Göttingen | 7 |
| 7 | Weimar | 7 |
| 8 | Nuremberg | 6 |
| 9 | Halle | 5 |
| 10 | St. Petersburg (Russia) | 4 |
| 11 | Dessau | 4 |
| 12 | Gotha | 3 |
| 13 | Tübingen | 3 |
| 14 | Gotha | 3 |
| 15 | Hannover | 2 |
| 16 | Jena | 2 |
| 17 | Munich | 2 |
| 18 | Chemnitz | 2 |
| 19 | Lemgo | 2 |
| 20 | Gießen | 1 |
| 21 | Breslau (1740s Prussia, in 1763 Habsburg, today Poland) | 1 |
| 22 | Kiel | 1 |
| 23 | Copenhagen (Denmark) | 1 |
| 24 | Ronneburg | 1 |
| 25 | Kempten | 1 |
| 26 | Frankfurt/Oder | 1 |
| 27 | Lübeck | 1 |
| 28 | Schwerin | 1 |
| 29 | Memmingen | 1 |
| 30 | Brunswick | 1 |
| 31 | Stuttgart | 1 |
| 32 | Dresden | 1 |
| 33 | Bautzen | 1 |
| 34 | Hof | 1 |
| 35 | Münster | 1 |
| 36 | Osnabrück | 1 |
| 37 | Brandenburg | 1 |
| 38 | Wesel | 1 |
| 39 | Buchholz | 1 |
| 40 | Bielefeld | 1 |
| 41 | Elberfeld | 1 |
| 42 | Dortmund | 1 |
| 43 | Sonneberg | 1 |
| 44 | Schweinfurt | 1 |
| 45 | Pressburg (Habsburg, today Slovakia) | 1 |
| 46 | Brünn (Habsburg, today Poland) | 1 |
| 47 | Cassel | 1 |
| 48 | Klagenfurt (Habsburg, today Austria) | 1 |
| 49 | Riga (Lithuania) | 1 |
| **50** | **Sum** | **146** |

Table 5.13. Places of geographical periodical publishing and printing, *c.*1690 – *c.*1815 (49 places).[814] Colour code: orange: foreign towns/cities in Europe; yellow: foreign towns/cities in overseas; blue: Catholic cities, green: places where main religion changed due to political events.

All the above highlighted centres were Protestant towns and cities, with the exception of Vienna, Erfurt, and Munich.[815] The great majority of books and periodicals were written and published in predominantly Protestant – mostly middle and northern – German states and towns. Out of the 99 different places of book writing, sixteen were Catholic, eighty-three dominantly Protestant. With respect to the 32 places of periodical editing, four were Catholic, twenty-eight Protestant (see tables 5.10 and 5.11).[816] This is echoed in places of publication. Out of 88 places of book publishing, only fourteen were Catholic; amongst the 49 towns of journal publishing, seven were Catholic. All other places were dominantly Protestant (see tables 5.12 and 5.13).

Geographical publications in predominantly Catholic regions – particularly Bavaria – increased only after the abolition of the Jesuit Order in 1773. This concerned especially educational and chorographic forms of print. Overall, publications by authors in Catholic towns and states remained limited to a few selected authors concentrated around Vienna, Erfurt, Munich, and Augsburg. Otherwise, a few books were produced in Salzburg, Pressburg, Graz, and Hermannstadt. Single publications of books or periodicals were written or occurred in Linz, Stolberg (near Aachen), Laibach (Ljubljana), Dillingen, Passau, Münster, Kempten, Memmingen, and Brünn. In contrast to works published by Protestant authors and editors, works by Bavarian and Austrian writers often either had a regional focus or were intended for local or regional audiences. Works published in the Austrian parts were more similar to Protestant publications concerning content, structure, and purpose. This was related to the fact that Austrian works were often based on Protestant German writings. Several Protestant publications were also available – often printed and sold – in early eighteenth-century Vienna.

[814] Numbers of places are higher than those of geographical periodicals, since books were occasionally printed and sold in more than one place.
[815] For an elaboration on the confessional 'divide' of the German states, see chapter 3.
[816] Methodologically, due to the lack of complete biographical information of many authors, the confessional analysis is based on the confessional inclination of the places of writing and publishing.

Progress in the science and of society was principally driven by Protestant authors. Later in the eighteenth and early in the nineteenth century, a few Catholic authors joined this quest for progress. The contributions in Catholic lands after the abolition of the Jesuit order indicate a role of religious politics regarding the spread of enlightenment progress ideas. This eighteenth-century German Protestant-Catholic divide has been indicated before.[817] Geographical print production – the materialisation of progress – was, in the Protestant lands, also related to personal interests and local conditions of patronage.

### *The conditions of print production*

Production of up-to-date geography required the author to be abreast of new work on the exploration of the earth and the changing nature of geography. Scholars were not easily able to know all the changes of the earth's surface, particularly regarding aspects related to humanity, the political landscape, the movement of peoples, and the presence and spread of related customs, religions, and 'civilisation.' Almost all authors stressed geography's changing nature. Some German geographers argued, "one knows the changeableness of earth description," or compared geography "with a calendar that changes every year."[818] One author argued that especially political geography underwent permanent changes of truth, and bemoaned, "What is strictly true today, is no longer true tomorrow."[819] Changes often concerned political and 'new' geography due to the ongoing geographical exploration of the world – of concern to scholars and the educated public alike. Not only access to new knowledge, but also identification of past geographical information was a crucial step towards completeness of the science. At the beginning of the nineteenth century, Ehrmann wrote: "How many important geographical works are unused and slumbering or mouldering in libraries, archives, and junk shops! – How many splendid geographical contributions are not scattered in totally unfamiliar and forgotten works, in dusty folios and ephemeral pamphlets!"[820]

[817] See Porter (1981).
[818] Drück (1784), preface; and Johann Heinrich Jacobi (1791), preface.
[819] Franz (1790), preface.
[820] Ehrmann (1809), 266; and Hofmayr (1810), 5.

Securing accurate information could present problems. The production of geographical print – especially for a complete geographical system – depended on access to a wide range of materials such as printed and unprinted texts in multiple languages and in several sciences beyond geography. Gaining access to sources often involved costly and time-consuming travelling and correspondence, especially as most German authors of geography were 'arm-chair' scholars or educated men who hardly left Europe and relied on networks of correspondence and access to institutions that systematically collected non-German publications. The library of the University of Göttingen was often mentioned as a key place of collection, and allowed also 'external' scholars to make use of its sources (see chapter 3).[821] Other libraries of institutions of higher education, public city libraries, and private libraries were referenced as useful points of consultation, including those in Hamburg, Nuremberg, and Stuttgart, as well as private libraries of Germans living in foreign cities, such as Copenhagen.[822]

Many scholars, nonetheless, expressed difficulties in accessing material. Complaints included the lack of the newest publications in libraries, the denial of access to libraries, the physical distance to libraries, and the lack of a central German library. Jacobi (1791) and Gaspari (1797) bemoaned difficulties when trying to get hold of relevant literature from libraries.[823] Norrmann (1785) spoke of cost-intensive information access due to private and public libraries' lack of will to allow access or other forms of cooperation.[824] The lack of a central German library and the dispersion of old and new publications and sources across libraries and the German states inhibited the production of geographical print. In summary, Ehrmann finally called knowledge access the "main difficulty of geographical studies."[825]

Other difficulties concerned financial, environmental, and political conditions when trying to access information and publications via private correspondence. Language, in contrast, was not seen as problem, since most scholars had command of a variety of languages. Personal correspondence with "friends" and "contact persons"

[821] See Büsching (1954) and Canzler (1790) who worked in Göttingen, and Fabri who was granted access as external scholar.
[822] See Büsching (1780) on Hauber's library in Copenhagen; see Ebeling on the Hamburg's city library, Mannert on libraries in Nuremberg, and Stein on Stuttgart.
[823] See Jacobi (1791) and Gaspari (1797).
[824] See Norrmann (1785).
[825] Ehrmann (1809), 271-272.

who mostly remained anonymous (often for political reasons) was often expensive. Zimmermann closed his journal *Annalen der Geographie und Statistik* (*Annals of Geography and Statistics*) (1790-1792) because of its high costs of production: "The great number of expensive works and original essays that must be collected quickly and widely, the extensive correspondence, the costs for support, for printing and dispatching – all extend by far the revenues, not to mention the enormous amount of time and labour; I can declare that I have worked completely for free during the last three years [during which he issued the journal]."[826] The role of political and environmental situations for knowledge access was expressed in Christoph Daniel Ebeling's correspondence with North American scholars and informants.[827] Ebeling bemoaned the effect of foreign politics, especially wars, and weather and animals on his knowledge exchange.

Neither did the great range of information available make the project of completeness easier. Several scholars who aspired to the construction of a "complete" earth description found themselves faced with an "immense and indescribably large, difficult, and arduous labour."[828] The scope of knowledge and existing geographical literature – including foreign publications – made the production of geographical print expensive and time-consuming, a problem for those authors of geographical works who worked as professors or lecturers in universities, colleges, and schools, or who acted as private instructors. The profession as public teacher or lecturer often only left "the evening and the holidays" to writing.[829]

### *Strategies of print production*

Different kinds of strategies were used to manage at least some of these obstacles in geographical production. This included particular print strategies, such as the production of multiple editions and supplements. The most common strategy was the publication of periodical works to itemise changes and updates. In comparison to books, journals were more frequent. Periodicals were particularly useful in systematically compiling knowledge that "shed light" on geography. [830] Bruns and

[826] Zimmermann (1792), preface.
[827] For example, in a letter to William Bentley, 29 April 1796 (see Ebeling (1925[1794-1817]), 288).
[828] Büsching (1760), preface, 6.
[829] Funke (1800), preface.
[830] Müller (1789), 124.

Zimmermann (1792) aimed to mediate information particularly on countries beyond Europe. They argued that, "Indisputably, no age has paid as much attention to geography and the related sciences, as the current one. The more one moves forward in it, the more one realises that it lacks useful materials for all countries, and especially the non-European ones, and that even the form of study requires improvement."[831] They therefore discussed travel accounts, books, and fragments of books "that aid the expansion of geographical and historical knowledge; that shed light on these [knowledges] […]."[832] Canzler (1787) hoped to provide "some small benefits to this science [geography] and its literature, and some profit for the same" with his *General Archives*.[833] In 1795, he specified his aim to present "new discoveries, enlightenments in new writings, and corrections therein without modification."[834] Franz Xaver (von) Zach (1798) expressed the aim to "contribute to the progress and spread of these sciences and to broaden their boundaries with the help of new and own works."[835] Zach further declared that his periodical would

> not only include announcements and reviews of all new books of geographical, astronomical and statistical content, no matter in which language, as long as they contribute to enlightenment and enhancement of these sciences, and all new maps and marine charts and topographic plans which are issued across Europe, but also and particularly provide original sources and issues concerning geography, astronomy, statistics, *Länder-und Völkerkunde*, that are new, important, instructive and are an asset to the science.[836]

To manage the increased range of knowledge, one strategy was scholarly collaboration. Not even Büsching, the most outstanding German geographer, had managed to finish his *Neue Erdbeschreibung* during his lifetime. Occasionally, scholars imagined an ideal man [sic], a "genius" who would be able to produce geographical systems in the envisioned way.[837] This was "a genius or a great mind who can combine the dispersed parts of empirical insights and assumptions to one whole."[838] Alone the work of a single universal geography would take decades.

[831] Bruns and Zimmermann (1791), vol. 1, preface.
[832] Bruns and Zimmermann (1791), vol. 1, preface.
[833] Canzler (1787), preface.
[834] Canzler (1795), preface.
[835] Zach (1798), introduction, 4-5.
[836] Zach (1798), introduction, 4.
[837] See Müller (1789).
[838] Müller (1789), 123, fn*.

Ehrmann stressed, "In short, the geographer needs more or less the help of all arts and sciences."[839]

A collective or 'society' ('*Gesellschaft*') of scholars was, thus, considered necessary in order to fulfill the aspired enterprise of a 'complete' geography. Such a 'society' of scholars did not have to take a formally institutionalised form. It could – and mostly did – take the form of a loose association of scholars living and working in different places across the German states. My evidence suggests that not only the entire system of geography but also its constructed individual sub-parts, that is, new, middle, and old geography, were to be carried out collectively. Particular advantage of writing geography collectively concerned, first, a distribution of work, which reflects the spread of notions of specialisation and division of 'labour' in sciences. Second, it increased the possibilities of accessing materials of knowledge in different places and spaces of collection. It was stressed that writing geography ought to be understood as a collective enterprise.

Several periodical works were co-edited or issued by a "society of scholars". Examples include the *Mitglieder der Kosmographischen Gesellschaft* (members of the Cosmographical Society) (1750) who published *Cosmographical News and Collections for the Year 1748*, and a journal edited by *Einige Gelehrte* ("some scholars") (1785-86). Both works indicated the collaboration already in their title. Twenty-two journals were edited by two or more scholars – most of them in the last decades of the eighteenth century and early in the nineteenth century. Forster and Sprengel's *Beiträge zur Völker- und Länderkunde* (1781-1790), Bruns and Zimmermann's *Repositorium für die neueste Geographie, Statistik und Geschichte* (1792-93), and Fabri, Johann Ernst and Hammerdörfer's *Historische und geographische Monatsschrift* (1788) are further examples. The *Allgemeine Geographische Ephemeriden* (*General Geographical Ephemeris*) finally was edited by Franz Xaver von Zach and "*composed by a society of scholars*" scattered across the German states. Direct collaboration in book production was less common – an example is Hammerdörfer and Kosche's (1784) *Europa ein geographisch-historisches Lesebuch zum Nutzen der Jugend und ihrer Erzieher* (*Europe, a geographical-historical reading book for the use of the youth and her educators*).

[839] Ehrmann (1809), 259; and Hofmayr (1810), 2.

This collaboration in writing and editing also had the intention of using periodicals as geographical 'store houses'. The notion of "storing" was already evident in some of the forms' titles. Periodical text forms entitled "libraries" (*Bibliotheken*), "archives" (*Archive*), and "*Repositoria*" were particularly intended to offer frequent collections of essays, articles, documents, excerpts of reports in a systematised way and on certain themes in order to benefit the progress of geography.[840] Print was not only a way to circulate knowledge but also to prevent it from getting 'lost' or destroyed. Bruns and Zimmermann (1792) described the aim of their *Repositorium* as to "store some of the newest and most remarkable enrichments in geography made by foreigners. For future geographers, it would be very useful if all these materials could be combined in one collection."[841] Bruns and Zimmermann's (1792) use of the verb to "store" illustrates its partial purpose for future geographical writers. It also shows identification with the republic of letters – the wider community of scholars. In this sense, too, the perfection of geography and its manifestation in print was an on-going project. Contributions could only be evaluated fairly by future colleagues. This was common thinking amongst members of the republic of letters. Canzler (1792) declared that he issued his *General literary archives for history, geography, statistics*… "even if one cannot count much on the appreciation of contemporaries, and rather [only] on the appreciation of the after-world."[842]

As a consequence of the high and increasing numbers of geographical and other relevant publications, several editors of periodicals aired their concerns over the loss of geographical and related knowledge. The potential loss of knowledge was considered an obstacle in the aim for a complete geographical system. Canzler (1787) stated:

> They [German authors] constantly raise the plentiful yield of the dug pits – amongst which there is certainly some dead rock – in journals and other sheets; yet, those [journals] quite often and regrettably! turn into graveyards of the gained treasures – because of their often mixed content, and because of their prevailing numbers. It already demands some effort just to remember

[840] The word "*Repositorium*" (lat.) means 'storing place,' inventory, catalogue, repertory; it referred to a place where documents were kept in an ordered way.
[841] Bruns und Zimmermann (1792), volume 1, preface.
[842] Canzler (1792), part "Literaturarchive für Journalistik und Miscellaneous," 1-2.

> the names of the many journals in order to remember the core, that is, the therein contained news.[843]

In order to combat any such loss of knowledge, Canzler intended to compile notes on 'endangered' knowledge: "In this part, several widely dispersed short news will find their place reworked to a useful whole."[844] Aiming to collect and systematise foreign geographical and statistical new and reports, Bruns and Zimmermann (1792) considered it to be "very useful" "if they [all the geographical news from foreign countries] could be brought together in one corpus."[845]

A further late-eighteenth-century strategy to retain knowledge and an overview of progress in geography was the publication of "*Repertoria*." *Repertoria* were books or directories that offered a systematised meta-perspective on the print published during certain periods. They compiled summaries of other publications' content and commented on their utility, method, and quality. I found two such directory works. Sotzmann's *Geographisch-statistisches Repertorium* (*Geographical-statistical Repertorium*) (1799) and Johann Samuel Ersch's geography-related *Repertorium über die allgemeinern deutschen Journale und andere periodische Sammlungen für Erdbeschreibung, Geschichte und die damit verwandten Wissenschaften* (1790-1792). Ersch's *Repertorium* was intended to provide an overview over "all general German journals and other periodical collections for the description of the earth, history, and the related sciences."[846] These "*Repertoria*" were, however, limited to publications made during a certain time period. In addition, complete directories were envisioned and postulated. Some even argued that such a work could replace the lack of a library.[847]

The geographical dispersion of authors and editors across the different German states was a challenge and an advantage at the same time. It was a challenge in that it made local collaboration difficult. It would have involved cost-intensive and burdensome travelling. Most journal and book collaborations were, therefore, often carried out by scholars living in the same or close towns. The members of the

[843] Canzler (1787), preface, i-ii.
[844] Canzler (1787), preface, iv.
[845] Bruns und Zimmermann, (1792), volume 1, preface.
[846] Ersch (1790), preface. Ersch did not list all periodical works he used. His *Repetorium* was a dictionary or gazetteer based on the new information provided in the different journals.
[847] Ehrmann (1809).

Cosmographical Society were based in Nuremberg. Fabri and Hammerdörfer lived in Jena at the time, Spittler and Meiners in Göttingen, Ebeling and Büsch in Hamburg, Zimmermann and Bruns in Brunswick. Only in a few cases, scholars collaborated across towns and states. Sprengel and Ehrmann lived in Halle and Stuttgart, Forster and Sprengel in Mainz and Halle/Salle. In these cases, collaboration worked via correspondence.

German geographical scholars imagined the German republic of – geographically working – scholars, and began to work together towards making geography more complete. By making use of local libraries, archives, and personal networks of correspondence, each could contribute according to his possibilities. At the end of the eighteenth century, this collaboration also resulted in a greater specialisation which allowed handling the scope of sources and information available to geographical writers, such as the numerous translated travel accounts and information in newspapers. The continuation of Büsching's *Neue Erdbeschreibung* is a prominent example. After Büsching's death, the work was spread amongst five authors each working on different continents. Matthias Christian Sprengel (Halle) and Samuel Friedrich Günther Wahl (in Bückeburg, near Hanover) wrote on Asia, Christoph Daniel Ebeling (in Hamburg) on America, and Johann Melchior Hartmann (in Marburg) on Africa. The Asian part focused on "Hindustan und Deccan," America concerned North America, and Africa was limited to Egypt. Australia, New Zealand, and Polynesia were not described at all.

German scholars also saw themselves as part of the cosmopolitan 'republic of letters'. Foreign correspondence and publications were, of course, essential sources. German authors reviewed foreign geographical works they got access to. These reviews offered summaries of the work as well as scholarly criticism since German authors saw themselves also in competition with foreign erudition. They suffered, as I have shown, from feeling insufficiently recognised internationally (see chapter 3). Ebeling argued in a letter to Jeremey Belknap from 28 April 1798 that Jedidiah Morse's geography could be enriched if he read German:

> Dr Morse has sent me his Gazetteer, which I have not yet had leisure to read and make us of, as I gratefully do. I wished the Doctor would have leisure or inclination to learn German, not only for my own benefit, as he could read my book, but also for his own advantage with regard to his European

> Geography, which I dare say has been cultivated very much by our German authors, and is daily getting new valuable supplements by great many able writers.[848]

The argument of collaboration in geographical writing is further supported when taking a look at author-public and editor-author relationships. Almost all book authors and journal editors encouraged the contribution of other scholars and also members of the educated public in order to improve the systematic collection of geographical information. Writing geography became a German-wide enterprise. Hager tried to encourage contributions from "virtuous and learned men" by offering acknowledgement in his periodical *Geographischer Büchersaal* (*Geographical Library*): "I have to praise in due form that many virtuous and learned men of first dignity from Germany and beyond have honoured me with pleasurable correspondence and have acquainted me with some good memories. Perhaps also others will be encouraged to do so, if they read here that I want to publish their contributions in their name so that also others are served."[849] Hager also aimed at combining individual and learned public improvement and hoped to reach a complete geographical system with the help of scholarly contributions: "It would be desirable, if more such enthusiasts and promoters of geography who render services to their fatherland [*Vaterland*] and describe it in detail, could be found: That way we could gradually bring to light a fairly complete geography."[850]

Two years later, Hager further asked to share information about foreign publications:

> Yes, I am asking – not only in my name but in the name of all enthusiasts of geography – that those who own Geographies written in Italian, Portuguese, Spanish, French, English etc. entrust these to me most kindly for a short period of time and against some insurance which I willingly offer to everyone, or otherwise to easily offer me sufficient news about them [these geographies]. With such goodwill against the history of geography, one could hope that one could gradually construct a complete history of this noble science.[851]

[848] Ebeling in a letter to Jeremey Belknap from 28 April 1798 (see Ebeling (1891), 621).
[849] Hager (1764), first volume, first issue, 3.
[850] Hager (1766 [1764]), 4th issue, 261.
[851] Hager (1766), 10th issue, 736-37.

Across the various text forms, almost every author of a geographical publication encouraged comments and contributions from his audiences. Book authors invited comments and suggestions for change and improvements. Editors of almost all journals requested contributions from their readers and expressed their hope that the publication of the various articles would encourage their readers to submit essays (*e.g.*, Hager 1764-78, Zimmermann 1790-92; Zach 1798-99). Hager (1764) also invited educated citizens to provide geographical reports of their local environment. Schlözer (1775, 1776-1782) asked the educated public to contribute to the advancement of statistics and geography by sending collected information or essays from personal travels. The emergence of an educated, reading public sphere which Habermas (1989) described and analysed was used by those scholars who were involved in the production of geographical texts.

The evidence assessed suggests that scholars began to distance themselves from the idea of a complete geography by the end of the eighteenth century. This was, perhaps, inevitable given the impossibility of completing, never mind just undertaking, a complete geography. Friedrich Gottlieb Canzler referred to the constancy of new research gaps in his *Abriß der Erdkunde nach ihrem ganzen Umfange* (*Outline of Geography in all its dimensions*) (1790), "The nature of the subject entails that deficiencies and errors are inevitable, even when working with diligent rigour; new gaps constantly evolve – despite the best will to avoid incompleteness."[852] Ongoing changes – mostly of a political nature – made the writing of geography a seemingly thankless task. Some scholars suggested that it was impossible to write a complete geography. For Volkmann, "Geographical books will never be complete, because there constantly occur changes; one therefore always finds the opportunity/opportunities to improve and correct."[853] The frequency of change was especially high during times of war, which made some scholars postpone their writings. Fabri described the differences in the eleventh edition of his *Abriß der Geographie* (*Outline of Geography*) as "various more or less substantial changes that occurred during this short period of time."[854] Ebeling stressed his aim for up-to-

[852] Canzler (1790), preface.
[853] Volkmann (1778), preface.
[854] Fabri (1805), preface.

datedness and his wish for peace in a letter to the Reverend John Eliot in Boston in 1809:

> My description of America was interrupted, because I wanted materials in order to show its newest state. I have not even Dr. Morse's newest Edition, of his valuable Geography and Gazeteer [sic]; I want several new maps. Besides at present it was impossible to procure them, as long as the Blocades [sic] are continuing, I was engaged to take part in a new Geography of Europe publishing now, whereof the Description of Sweden, Danemark [sic], Norvegen [sic] and Portugal (this last my work) have appeared in print. The uncertain state of all European Empires and Realms depending on the mercy of a great man, makes Geography a very fluctuating Science. Therefore I shall wait for the final Settlement of the constitution etc of unhappy Spain, and not publish my description tho' already finished, till its peace is restored.[855]

This is to suggest that the late eighteenth-century and early nineteenth-century trend for a 'turn to nature' was intended to reduce the need for new information: studying physical geography and physical boundaries instead of political ones presented less of a need for comprehensive up-to-date material. This turn was prompted by the 'ease' with which nature's forms might be described in contrast to the fluidity of human society (see chapter 4). Not all authors followed this suggestion. Many pointed to geography as a historical science or accepted the changing nature of geography. Authors, such as Volkmann, argued that "geographical books will never be complete, because change constantly occurs; one therefore always finds the opportunity to improve and correct."[856] Others, such as Büsching, stressed the limitations of human knowledge: "I incessantly aim for all possible and necessary kinds of completeness, but I increasingly have to admit that human virtue and human knowledge will always remain faulty and deficient."[857] The utopian character of the desire for completeness was recognised by some scholars. The aim was, however, as Büsching's words show something to be aspired to. The scholarly aim of a complete geography was, in the end, a motivation – even a guiding principle – for progress in geography and the sciences.

[855] Ebeling, in a letter to Rev. John Eliot, 25 October, 1809 (see Ebeling (1925 [1794-1818]), 392).
[856] Volkmann (1778), preface.
[857] Büsching (1773), preface, 7-8.

***Economic incentives and the power of the reader***

To manage changes and updates for practical geographical print, the main solution was the publication of multiple editions and later supplements. Johann Dietrich Hartmann (1794) was convinced "that no other realm of human knowledge requires new textbooks so frequently, because there occur daily changes in the moral, physical, and political conditions of countries."[858] Fabri described the differences in the eleventh edition of his *Kurzer Abriß der Geographie* (*Short outline of Geography*) as "various more or less substantial changes that occurred during this short period of time."[859] Fabri's *Handbuch der neuesten Geographie für Akademien und Gymnasien* (*Compendium of newest Geography for use in academies/universities and grammar schools*) (1784-1785) was, for example, reedited nine times between 1787 and 1819. Fabri's *Kurzer Abriß der Geographie* (*Short Outline of Geography*) was very popular and had more than fifteen editions between 1786 and 1817. Some authors also tried to combat obstacles to publication and correspondence by the successive publication of different volumes. Fabri issued five volumes of his *Geographie für alle Stände* (*Geography for all Estates*) gradually between 1786 and 1808. Geographical print for use – especially in education was not intended to be complete in absolute terms. Its utility defined its success. 'Completeness' was therefore related to the books' purposes.

The large amount of geographical literature was used as an excuse by authors of geographical compendia or textbooks to spare detailed indications of sources and references. That is, the decision would be made to omit pages and so save costs by presenting lists present in other texts. Authors referred to other scholars' lists or to their own previous and later updated publications. Several authors only made reference to their "main" sources ("*Hauptquellen*") and pointed to the limitations of space and lack of the audience's interest in this matter. This included, for example, Norrmann's (1785) *Geographisches und Historisches Handuch der Länder-Völker- und Staatenkunde* (*Geographical and historical compendium of* Länder-Völker- *and* Staatenkunde), Jacobi's (1791) *Allgemeine Uebersicht der Geographie, Statistik und Geschichte sämmtlicher Europäischen Staaten* (*General Overview of Geography,*

[858] Hartmann (1784), preface.
[859] Fabri (1805), preface.

*Statistics, and History of all European states*), and Gaspari's (1797) *Vollständiges Handbuch der Erdbeschreibung* (*Complete compendium of earth description*).

Reducing the number of pages could also save costs in production, and lower the sale price. Price was an element of competition, and a way to demarcate scholarly from publications intended for public use. Fabri (1784) stated in the preface of his *Handbuch der neuesten Geographie für Akademien und Gymnasien (Compendium of the newest geography for academies and grammar schools*): "The merits of the Gatterer *Outline of Geography* are well known, and deserve grateful mentioning, yet, the acquisition of this scholarly work is too costly for most of our audience members [students] and, besides, we are still awaiting the completion of the Whole."[860]

Reference to more established authors was a way to demonstrate credibility whilst obviating the need for full citation. Such frequently referenced scholarly works often served as sources for other geographical publications, such as textbooks. It was a matter of acknowledging more authoritative authors – the scholars – in the field. Such referencing often cited Anton Friedrich Büsching and his *New Earth Description* (1754-1792). A high number of scholars who published after 1754 highlighted Büsching as a key reference in their prefaces or in footnotes (*e.g*., Pfennig 1783, Drück 1784, Fabri 1784, Stuck 1784, Engel 1791). As for many others, Drück (1784) declared, "The sources which the author has drawn from are only mentioned if they are not Büsching's."[861] Other authors and compendia often referenced in the later decades of the century included Johann Christoph Gatterer and his (1775) *Abriß der Geography* (*Outline of Geography*), Johann Ernst Fabri and his (1786) *Geographie für alle Stände* (*Geography for all Estates*), Friedrich Gottlieb Canzler's (1790-91) *Abriß der Erdkunde nach ihrem ganzen Umfang zum Gebrauch bey Vorlesungen* (*Outline of Geography in all its Dimensions for the use in Lecture*), Gerhard Philipp Heinrich Norrmann's (1785) *Geographisch und historisches Handbuch*…(*Geographical and historical compendium*), Albrecht Anton Watermayer's (1782) *Statistisch-Historisch-Geographisches Handbuch…* (*Statistical- historical- geographical compendium*), Christoph Daniel Ebeling's (1793) *Erdbeschreibung und Geschichte von Amerika* (*Geography/earth description and history of America*). Moritz Erdmann Engel (1791) based his *Neues Handbuch*

[860] Fabri (1784), preface.
[861] Drück (1784), preface.

*der Geographie mit den nöthigsten statistischen und historischen Erläuterungen für die Jugend und Freunde der Erdkunde* (*New compendium of geography...for the youth and friends of geography*) on works by Büsching, Gatterer, Fabri, Normann and Watermeyer. Engel stated, "That I have used the excellent publications of Büsching, Gatterer, Fabri, Norrmann, and Watermeyer and other men who have rendered services to this science, this, I think is more a way of grateful recognition than an excuse."[862] Some authors based the presentation and organisation of geographical knowledge on systems previously developed by authors who had aimed at complete systems. Drück (1784), for example, built his *Erdbeschreibung von Asien* (*Geography of Asia*) on the sytematisation of Gatterer's *Outline of Geography*.

This acknowledgement of well-known authors' publications was also a strategy to justify one's own publications. Authors felt the need to justify their works by stating the utility – benefit in content or mode of presentation – and by justifying the publication with reference to the large volume of works already available. Watermeyer (1786) politely and modestly introduced the second edition of his compendium by saying "I would have minded to enlarge the number of compendia in this subject by adding mine, if the first edition of this book had not already taken up a place amongst them and if I was not able to say that."[863] For Canzler, "With such a high quantity, and the almost innumerable number of predecessors on the path which I dare to step on with this work, I cannot help it but speak to my audience with utter diffidence and with justified concern about a potential lack of appreciation."[864]

The volume of geographical print numbers was also an issue for periodicals. In 1773, Büsching saw a need to justify the start of his weekly journal *Wöchentliche Nachrichten von neuen Landcharten, geographischen, statistischen und historischen Büchern und Sachen* (*Weekly news on new maps, and of geographical, statistical and historical books and things*) (1773-1788) in the face of a "burdensome amount of newspapers and other periodical work." He argued that his work was necessary to provide a better quality of information and comments that could rectify the "many incorrect, unjust and unfair reports and judgments of books,

[862] Engel (1791), vii.
[863] Watermeyer (1786), preface.
[864] Canzler (1790), preface.

especially regarding statistical, geographical, and historical ones."[865] Bruns and Zimmermann (1792) saw a need to contrast their work with those of others; they hoped to avoid competition and "collision with competition with collections of a similar nature" by "storing some of the newest and remarkable enrichments in geography made by foreigners."[866]

Particularly prefaces, postscripts, footnotes – the paratextual in-print spaces – were used to announce and market forthcoming works. Authors referred to their own works already issued or about to be published. Fabri (1785) referred in the preface of the fifth edition of his compendium *Handbuch der neuesten Geographie für Akademien und Gymnasien* (*Compendium of the Newest Geography for Academies and Grammar Schools*) to various issues of his different geographical magazines for further reading, for example to "a complete catalogue listing the elevation of different places to be found in the *geographischen Magazin*, issue iv and issue vii."[867] In the eighth edition of this compendium, Fabri announced the forthcoming "new messages from East India which should be of interest to all" which he intended to publish in "one of my geographical journals."[868]

The growth in popularity also led to a growing consideration and power of the reader: not only the scholarly reader as judge of quality but also the popular reader as learner and consumer. Later editions most stated the acceptance and appreciation of comments and suggestions of referees and readers. The publication of geography in print always had reputational, educative, and commercial elements. For this reason, many late eighteenth-century authors chose to stress their work's "comprehensiveness" or to stress its "succinct shortness without falling into dry or skeletal descriptions."[869]

The attempt to move away from writing 'dry' books indicates a stronger appreciation of language and form – towards greater readability. Not all scholars agreed with that trend. Already in 1772, Johann Christian Gatterer expressed his critique of the stigmatisation of 'dry' descriptions in 1772: "It is anyway bad enough that the otherwise so thorough and serious Germans who, by nature, have a good

[865] Büsching (1773), preface, 4-5.
[866] Bruns and Zimmermann (1792), preface.
[867] Fabri (1785), fn in preface.
[868] Fabri (1803), preface.
[869] Jacobi (1791), preface.

talent for [writing] history, nevertheless, allow the rise of people amongst themselves who find everything that is comprehensive dry; those people always want to amuse by pleasantry or want to be amused themselves; they despise the earnest beauty of history or even call it preposterous."[870] For scholars like Gatterer thoroughness and dryness were related.

## Conclusion: geography and print

The chapter has shown how printed works in geography discussed progress *in* geography and promoted its use *for* society. Two main genres served these purposes: books and periodicals. A small number of such works were primarily intended for scholarly progress. The great majority was meant for geographical learning and individual reading. This was reflected in the great numbers of print genres, such as compendia, systems, textbooks, and periodicals, intended to document progress in geography, and to guide public learning throughout the eighteenth century as well as at the beginning of the nineteenth century.

Towards the end of the eighteenth century, both books and periodicals experienced a growth in numbers due to scholarly and public interest in the genre. The scholarly aim for progress in geography, the emergence of the public sphere, and the appreciation of geography as a form of public learning, all worked to increase the number of geographical works. Geography became of scholarly interest, since it was a science that built on all sciences and arts, and could demonstrate the success of progress and civilisation. The description of geographical history and the current geography of progress could demonstrate the benefits of the progress-paradigm. Geography could show the superiority of Europe and European civilisation, and could provide evidence of 'enlightenment' – in the sciences and of society.

Geographical progress and the utility of educational and popular print were further discussed in publications concerned with geographical advancement but also in prefaces and postscripts of many books and periodicals, and in review journals. Amongst the scholarly public, the aim was two-fold. It, first, reflected the aim to advance the science and promote its presence in universities. It concerned, second, the scholarly aim to monitor the growth and quality of geographical print. Quality

[870] Gatterer (1772), preface.

criteria sought to differentiate scientific publications from more popular ones. Referencing and critical evaluation and one's selection of sources (source criticism) were essential criteria.

Debates also concerned the practice of geography with respect to the progress of society. For geography's print culture, this meant providing means for geographical education, in schools, colleges, and universities, and for self-education. Print discussing the state of geographical education was intended to improve the quality of geographical instruction. Geography was seen as a subject by which society could self educate, to form enlightened, morally sound and rational citizens. Progress of society further comprised the dissemination of (useful) geographical knowledge and aesthetical moral education, the development of patriotic sentiments, and the support of an appreciation of Christian belief. An eventual aim was *eudaimonia* ('*Glückseligkeit*') – a sense of social and individual blissfulness. Print provided and disseminated a manifestation of geographical progress. Geography's textual genres were, hence, means to implement ideas of progress.

Thematically, for most of the eighteenth century, political geography predominated in German systems and in geographical print for public use. Large numbers of pages were given to political geography even in systems aiming to contribute to a complete geography. Only towards the end of the eighteenth and the beginning of the nineteenth century, physical geography and mathematical were given more attention and higher priority. This was related to difficulties in producing books on political geography due to the frequent political changes at the end of the eighteenth and early nineteenth century. Even periodicals used as a more frequent medium of publication could not keep up with the changing political landscape. These conditions made the instruction of geography increasingly difficult. Scholars, consequently, suggested a stronger focus on physical geography and a use of 'natural boundaries' to organise geographical knowledge and to teach the science at the turn to the nineteenth century.

Throughout the eighteenth century, also an interest in historical geography endured, which reflects the wide-spread understanding of geography as a historical science. Particularly the engagement with 'old' geography – geographical knowledge of Greek and Roman scholars – shows an interest in Greek and Roman civilisations,

and may indicate an engagement with stadial theories. Only the late eighteenth-century shift towards the turn to 'nature' promoted by several scholars questioned the understanding of geography as a historical science.

The growth in numbers of books and periodicals towards the end of the eighteenth century reflected the continuous exploration of the earth and the growing scope and detail of knowledge made available. This growth in knowledge also resulted in print specialised in particular geographical themes, such as political, physical, mathematical, or historical geography topics. Also increasing numbers of chorographical and topographical works and of print that centred on related geographical themes, such as trade, commerce, and military and medical geography, appeared later in the eighteenth and early in the nineteenth century. This reflects, on the one hand, an increasing connection between geography and questions of local and regional economic improvement and identities.[871] It may, on the other hand, also be understood as an expression of an increasing "geographically informed" thinking, that is, a greater appreciation of the "significance of place" and the use of "geography's classificatory methods" in the development of other sciences.[872]

The chapter has also shown that the production of geographical print was guided by the aim for 'completeness'. The aspiration – the utopian aim – of 'completeness' in print and a 'complete' geographical system indicates the combination of empirical and inductive science-making with a teleological goal – with an ultimate or future goal that guided the presence. Even when scholars realised and acknowledged the limitation of human knowledge and the utopian character of the 'completeness'-enterprise, 'completeness' and 'perfection' nevertheless remained guiding principles.

The aim for 'completeness' may have served as a way to overcome the limitations of a mechanistic tendency in the empirical method evolving in the Anglo-Saxon world. British empiricism (especially Bacon, Locke, Hume) taught that knowledge can only be drawn from the sense experience and that human faculties are limited. British empiricists could agree to 'completeness' in method but not in

[871] See Kühn (1939) who already pointed out that, for the most part of the eighteenth century, physical geography served mostly a practical and applied purposes, for instance in mining.
[872] Withers (2007), 207. Withers has suggest that the appearance of medical geography concerned a "longer-run geographically informed synthesis of the earth and medical sciences" (see Withers (2007), 207).

content. The German – theoretical – ambition of 'completeness' was an aim for a higher goal, and, for many German scholars, related to both method and content. German geographers often had historical or theological training, and advocated the possibility of knowing beyond sense experience – via imagination and the 'powers of the soul.' 'Powers of the soul' most often referred to powers of the 'mind' – mental capacities that could be developed and could transcend the limitations of sense perception – for instance in imagination.[873] This higher goal may have been a way to work empirically whilst circumventing the 'danger' of falling into a mechanistic understanding of the world.[874]

I want to suggest, then, that geographical print production was characterised by an iterative process – an entanglement of production, circulation, consumption, and re-production – since 'completeness' in geographical print was considered dependent on feedback – either by scholars, the public, or both.

The chapter has also shown that personal and spatial conditions behind the writing of geography could inhibit the production of geographical print – and the production of a 'complete' geography: limitations in time and access to 'new' information and scattered unused sources despite their scope, and the speed of change in knowledge. These obstacles were countered with specific strategies within geography's print culture – the issue of multiple editions, the use of supplements and journals in combination with books – and the collaborative writing of geography, including contributions from the public. Print was, then, also regarded as a space to 'store' geographical knowledge that could be of use for writing geography, later and elsewhere.

The chapter has also elucidated the spatiality of geographical print production. My findings suggest that the writing and publishing of geographical print occurred in numerous smaller and larger towns across the German states. It, thus, reflected the political and urban fragmentation of the Holy Roman Empire. The

[873] See Reill (1973) on Gatterer and the 'powers of the soul'. On the 'soul' see also Mensching (1991).
[874] On German eigteenth-century concepts of 'completeness,' see Koselleck (1975), 379-387, Muhlack (1991), 140-141; Prüfer (2002), 173-202. Ideas of 'completeness' or 'perfection' were also present amongst Scottish historians. For those thinkers, 'perfection' however only meant an improvement of the human condition, and not an imagined perfect – paradise-like – state of human existence. The German mis-translation of Scottish enlightenment historians and their understanding of 'perfection' were related to Protestant aims of spiritual perfection, as Fania Oz-Salzberger has shown. It is possible that such false translations also concerned 'perfection' or 'completeness' in a scientific context (see Oz-Salzberger (1995), 21-22).

production of geographical print – its writing, editing, and publishing – also echoed confessional differences between (and within) the German states. Geographical print production – in its aim for progress in geography and of society – was most strongly present in the dominantly Protestant – middle and central German – states; it was thus, foremost a Protestant phenomenon.

# 6

# Geographical practice in education

Figure 6.1. A private lesson in geography. Frontispiece to Gerlach's (1772) *Kleine Erdbeschreibung: darin die Erklärung der Erdkugel, ihrer Zirkel und derer Nutzens, geometrische Ausmessungen der Erde, der Grund richtige Landkarten zu machen; der vornehmsten Oerter Lage, oder Grade ihrer Länge und Breite, und andere Eigenschaften; wie auch der Länder Lage, Klima, größte Tageslänge, Größe, Abtheilung, Fruchtbarkeit, Seltenheit, Religion, Handlung, Regierung, Macht, [et]c. enthalten sind; Zum Gebrauche der k.k. Ingenieurakademie*.

## Introduction: the improvement of geographical education

> It cannot be denied [...] that the great amount of new discoveries, investigations, and corrections, which the sciences have made in almost all countries of the world during the last twenty years, have also given geography an entirely new shape. Important changes in geography were also imminent due to the great political revolution of the world. The usual geographical instruction in schools was, however, not methodical; teachers and maps had most often become incorrect, inexpedient, and useless.[1]

> It is undeniable that almost all of our schools are not at all favourable to the study of geography. There is a lack of everything – of time, books, and maps.[2]

The frontispiece and these two statements, the first from an unknown author, the second from the geographical writer and teacher Adam Christian Gaspari, speak to an issue shared by several late eighteenth-century German scholars and educators: geographical education and its improvement. Numerous German writers and teachers were aware of progress in the sciences and in geography, and were keen on translating these geographical changes and advances into education. Education – at home, in schools, in colleges, and in universities – was considered important for implementing the enlightenment aim of forming knowledgeable and civilised citizens. Some scholars – eighteenth-century and recent authors alike – have thus called the eighteenth century in the German states the 'pedagogical century.'[3]

German thinkers and educators saw themselves as crucial mediators in the process of enlightening the public. The successful transfer of advance in research into education was an indication for a state's or a country's ability to spread enlightenment knowledge. Educators and writers concerned with progress showed increasing interest in geographical instruction and its improvement. The interest was twofold: to keep the curricular content up to date with scientific developments, and to improve the conditions and methods of education. The ambition to improve geographical education led to the publication of numerous textbooks, essays, printed

[1] Anonymous, quoted in Gaspari (1800), 86.
[2] Gaspari (1800), 17. Gaspari refers to all German states and imperial circles of the Holy Roman Empire.
[3] Glandorff (1784) referred to "the present pedagogical epoch" (Glandorff (1784), 3); Möller (1986), 133, stated, "the Enlighteners were equally learned and didactic; they were instructive without any hesitation. Their pedagogical impetus permeated the *Zeitgeist* and was aligned with the philosophical, literary, and political goals" (Möller (1986), 133).

speeches on education, and articles by German thinkers and pedagogues, especially during the last third of the century.

This chapter demonstrates that geographical instruction in schools and at home was part of these concerns with social progress and individual improvement. Geographical instruction – its content and methods – was considered to have a propaedeutic nature, universal utility, and the potential to improve cognitive abilities, even human character. Effectively practiced, geographical education was considered important for all members of society. The concern for geographical education resulted, I shall show, in work around the geographical methodology of learning – the '*geographische Lehrmethode*'.[4] This discourse comprised the state of the art over geography, its purpose, the appropriate content, and the methods of geographical instruction for different parts of the learning public. Later eighteenth-century authors of geographical textbooks and essays distinguished the 'learning' public by different criteria: age, place, social status, and future profession. Effective geographical education, therefore, ought to be carried out relative to these criteria.

In order to illustrate the debates around the improvement of enlightenment education, and to explore the later eighteenth-century ambition to adapt geographical instruction to advancements in science, the chapter is dived into three sections, examining respectively, the benefits of geographical knowledge and the methodologies and methods of geographical instruction. Section one shows how geographical knowledge was considered universally useful, especially so in cultivating good citizenship and enlightened virtues. Section two focuses on the wider methodologies of geographical instruction, and particularly illustrates the role of different criteria in instruction and the conservative position held by several authors. The third section discusses how specific teaching techniques (methods) aimed at removing geography's image as a 'dry memory' science towards a subject that could train mental and emotional faculties. The conclusion summarises the various themes and arguments, and suggests that the forms of geographical education involved numerous oral, written, and ocular practices, each serving to direct

[4] The German term '*Lehrmethode*' which was frequently used by German authors literally translates as 'learning method.' It referred, however, to the wider methodology of learning and teaching, for which reason I translated it as 'methodology.' 'Methodology' here refers to the underlying rationale that guide – provide the framework – for the choice and use of methods (see Kitchen (2000)).

education as a social goal. Throughout the chapter, I will show differences and commonalties in geographical instruction between Protestant and Catholic states.

## The benefits of geographical knowledge

In the German states, geography was only made obligatory as a school subject during the last third of the nineteenth century – at about the same time when geography became institutionalised in universities.[5] Geographical instruction in schools and at home was considered relevant in the eighteenth-century German states, because geographical knowledge and teaching methods were understood to be useful. This section elaborates first on the role of geographical instruction in the eighteenth-century German states. It then illustrates the benefits attributed to geographical instruction. In the third part, it discusses criticism of geographical learning as expressed by eighteenth-century authors and teachers.

### *Eighteenth-century German geographical instruction*

As geographical instruction was seen as a way to "spread enlightenment amongst all estates," numerous textbooks were published especially during the last third of the century.[6] Of the 345 books analysed for this thesis, 239 books (69.3 %) were intended for learners in geography; twelve treatises were written solely on improvement of geographical instruction. Many authors worked as geography teachers in schools or private homes or had some educational experience. One textbook used widely during the first half of the eighteenth century was Johann Hübner's *Short questions from old and new geography* (*Kurtze Fragen aus der alten und neuen Geographie*). Hübner, teacher and writer on pedagogy in several subjects, including geography, history, and religion, produced more than forty editions of this work after the first officially printed edition from 1693.[7] Records of the use of Hübner's books are limited. We know, however, that early in the century, Hübner's *Short questions* were also used by Pietist pedagogues.[8] Pietism, and particularly

[5] Hübner (1953), 209.
[6] Norrmann (1785), preface III.
[7] See also Tang (2008), 40. Tang (2008) refers to the version from 1693 as the first edition. It was, however, only the second edition. I could not find any record of the first edition. [See also discussion of Bowen (1981) in chapter 3]. For biographical information on Hübner, see Kämmel (1881).
[8] Gruber (1900).

August Hermann Francke's theological thoughts, spread widely within the Protestant northern and central German states of the Holy Roman Empire, especially in the first third of the eighteenth century. Pietism was a continental Protestant reform movement after the Thirty Years War (1618-1648) aiming to return to the aims of the Reformation. Its doctrine gave greater value to the personality of the individual and to the spirituality of the religious life.[9] Pietist theologians developed an own pedagogy which centered on the improvement of earthly life through active piety. Due to the focus on an 'active' life, the so-called '*Realienfächer*' or '*Sachunterricht*' – the teaching of 'realistic' knowledge, such as natural sciences, geometry, arithmetic, and modern languages – were given higher value. Geography was considered beneficial for forming educated Christians and Pietist citizens. Under Pietism, Francke had promoted school geography and included one hour per week of geography teaching in the new curriculum of his *Pädagogicum*, his school and orphanage in early eighteenth-century Halle. He considered geographical knowledge useful for forming good Christians and for enhancing students' understanding of religion, history, and the classics.[10]

When Pietism declined in the Protestant northern German states around mid-century, Hübner's textbooks were still re-edited and used in private education and in state schools.[11] A few other authors circulated textbooks on geographical instruction. Johann Georg Hager, geography teacher and principal of a school in Chemnitz, Saxony, wrote his (1755a) *Short geography for beginners* (*Kleine Geographie vor die Anfänger*).[12] In 1765, the theologian Gotthilf Christian Reccard published his *Textbook containing a short lesson in different philosophical and mathematical sciences, history, and geography. For the use in schools* (*Lehrbuch darin ein kurzgefaßter Unterricht aus verschiedenen philosophischen und mathematischen*

[9] Francke's main concern had been orphans and neglected citizens after the Thirty Years War (1618-1648).
[10] Beck (1982), 52, 106; on Pietism see Brecht (1995) and Brecht *et al*. (2006).
[11] The numerous editions of Hübner's *Short questions* (Barron 2003-2008 lists 36 editions) until the late 1760s and comments from authors of later eighteenth-century German geography textbooks suggest that Hübner's textbooks and school atlas were used until far beyond his death in 1731. In 1776, Schatzen still criticised the use of Hübner's book and teaching method (see Schatzen (1776a)). Hübner's text also served as basis for geographical instruction in the dominantly Catholic states. In 1755, 1760, and 1767, editions of the *Short Questions* appeared in Regensburg (Bavarian Circle) and Vienna (Austrian Circle).
[12] For biographical information on Hager, see Ratzel (1879).

*Wissenschaften, der Historie und Geographie gegeben wird. Zum Gebrauch in Schulen*).[13]

During the last third of the century, the numbers of textbooks and publications on geographical teaching increased across the German states (see chapter 5). Many of these works discussed geographical instruction including teaching methodologies and methods. In the middle and northern German states, authors and practitioners concerned with the improvement of geographical education were often either advocates of Philanthropist or Neohumanist thought.

A dominant pedagogical Enlightenment vein in the second half of the century was 'Philanthropism'. Philanthropist pedagogues aimed at educating children to prepare for a "socially useful, patriotic, and eudaimonic life".[14] The idea was to form a 'new human being,' the argument being that society's problems were caused by the lack of appropriate education. Philanthropist pedagogues, therefore, primarily aimed at forming 'useful' citizens. School subjects ought to be useful and practical, and the methods suitable for children. Regarding the latter, Rousseau's educational ideas and his emphasis on the child's needs were appreciated.[15] The utilitarian premises of education had two aspects. Informed and eudaimonic human beings with useful skills were, first, seen as beneficial for society. Second, the emphasis on utility had a political connotation in that it reflected and criticised the uselessness of the two upper estates – clergy and nobility.[16] Strong advocates of Philanthropism were Johann Bernhard Basedow, Carl Friedrich Barth, Ernst Christian Trapp, and Johann Heinrich Campe. As geography was regarded as a useful subject, it was part of many educational plans, and was taught in many schools that followed Philanthropism.[17]

The purely utilitarian educative approach favoured by several enlightenment scholars, especially the 'Philanthropists,' was rejected by Neohumanist thinkers and pedagogues later in the eighteenth century. The first aim of this group of educators was *eudaimonia* of the singular human being, which implied an education that also

[13] Reccard (1765b). For biographical information on Reccard, see Förstemann (1888).
[14] Johann Bernhard Basedow in Wagener (1936), 7.
[15] Wagener (1936); Sesink (2007); Benner and Kemper (2009).
[16] See Sesink (2007).
[17] Geography was part of Basedow's 'Philanthropin'. Based on his pedagogy and together with Christian Heinrich Wolke, Basedow had created this educational institution in Dessau in 1774. In 1777, Barth published his *Philanthropic plan of education* (*Philanthropischer Erziehungsplan*) in which geography was given an educational role (see Schmitt (2005)).

caused positive effects on the 'heart'. Neohumanist scholars stressed the aim of developing the 'whole human being' ('*den ganzen Menschen*'), a holistic person whose upbringing was not tied to his or her place in society. Neohumanist scholars advocated a peaceful and harmonious society. The argument was that an individual's well-being would result in behaviour beneficial to society. Emphasis on utility was, hence, not necessary.[18] Famous Neohumanist adherents were Johann Gottfried Herder and Friedrich Gedicke (also Gedike). Both stressed the educative benefits of geography.

In the Catholic states, geographical education only began to play a role with educational reforms following the abolition of the Jesuit Order by Pope Clement XIV in 1773. In both states, the Jesuit Order had dominated school and university education before 1773. The educational reforms in Bavaria were intended to expand the capacities of education, and to improve teacher training. Development of teacher training was intended to spread enlightenment thought, and to replace pastors who had long been in control of primary education.[19]

In the Austrian state, educational reforms became effective most strongly after the abolition of the Jesuit Order in 1773, despite earlier attempts to reform education.[20] Dissatisfaction with Jesuit education and obvious differences between Protestant and Catholic education – especially concerning higher education – had led to calls for improvement of education, particularly by the Austrian nobility. In response to increasing complaints by the nobility who were sending their young men to Protestant universities such as Halle and Leipzig, Maria Theresa initiated education reforms in the 1750s. Maria Theresa considered reforms important, also in order to keep up to Prussia's military development, to improve the state's economy, and to prevent the further spread of Protestantism amongst the peasantry. When the Jesuits opposed Maria Theresa's reform suggestions in 1759, they were removed from controlling university education, which centred on theology and philosophy until then. Yet, the new Pope Clement XIII in 1758 rejected any further reforms, which motivated Maria Theresa to establish state control of religion based on Erastian principles of state-church relations, and the banning of the Jesuits from

[18] See Brenner and Kemper (2009).
[19] Braun (1773); Ickstatt (1774).
[20] Wangermann (1981); Melton (1988).

teaching in all educational institutions. The reforms were eventually saved and were resumed when the Jesuit Order was dissolved by the next Pope Clement XIV in 1773. The reform soon extended to all fields of education, and continued under the reign of Maria Theresa's son Joseph's II (1780-1790).[21]

The general education reforms in Bavaria and the Habsburg lands addressed primary and secondary schooling, as well as university education. It came with increased revenues and funding for (primary) education, allowing the acquisition of new textbooks, better teacher education and teaching salaries.[22] In both states, new types of schools were created, and new curricula, methods and textbooks introduced. Austria also introduced compulsory schooling in 1775. Concerning primary education in both states, the '*Trivialschule*' (elementary instruction) was invented and established in every town or rural parish (beyond the existing parish schools). New teaching methods ought to go beyond the use of memory, including questions to children (often using 'Socratic dialogue'), allowing comments and discussion of opinion instead of mere repetition. Focus was on practicality and good morals.[23] Concerning secondary education, the '*Hauptschule*' (Austria) or '*Realschule'* (Bavaria) (urban grammar school) for future merchants, clerks, or artisans was created. The '*Gymnasium*,' a higher grammar school leading to university, was also part of the reform. Education was, thus, reformed without challenging the social structures of the state: different curricula, textbooks, and methods for rural and urban schools were introduced.[24]

The reforms in the Catholic states – Bavaria and Austria alike – demonstrate an embrace of enlightenment ideals and an imitation of Protestant education structures and methods. As Heinrich Braun, a leading Bavarian reformer, put it: "In Germany, the difference between Catholic and Protestant schools is so great and bright that one has to cover one's eyes, if one does not want to see that light. There, one sees quite different customs, a completely different teaching style, and totally different teachers."[25] The ambition to imitate educational structures, methodologies,

[21] Joseph II was also Emperor of the Holy Roman Empire from 1741 to 1790 (see Schmidt (2009)).
[22] Melton (1988).
[23] Wangermann (1981), 132.
[24] Ickstatt (1774); Braun (1774); Stefl (1902); Wangermann (1981); Melton (1988).
[25] See Braun (1773), 34.

and methods present in Protestant Germany, included the production of geographical teaching materials.[26]

Concerning geographical education in the Catholic states, my findings suggest that geographical textbooks were mostly produced after 1773. Before 1773, only a few texts were issued by Jesuit authors, such as Maximilian Dufréne's (1729 and 1740) *Rudimenta Geographica…Geographical beginning. Or a short and simple way of teaching geography to the Catholic youth. For schools of the Society of Jesus in the provinces of Southern Germany* and the Benedictine Anselm Desing's *Shortest universal history based on geography* which appeared in four editions before the reforms: in 1732, 1736, 1750, and 1767.[27] A few textbooks written by Protestants authors but modified and printed in the Catholic states, served as teaching basis. This concerned an edition of the Swiss Protestant historian and geographer Friedrich Osterwald's *Historical Earth description for the use of the youth*.[28] Three editions of Hübner's *Short Questions* were published in Regensburg and Vienna in 1755, 1760, and 1767.[29]

It is clear that after 1773, textbooks and guidelines for an improvement of education, including geographical education, were demanded by the reformers. In Bavaria, two main reforming figures – Johann Adam Ickstatt and Heinrich Braun – gave speeches and wrote educational pamphlets. This included Ickstatt's (1774) *Academic speech about the gradual establishment of lower and higher rural schools*, Braun's (1773) *How are the places of Jesuits in schools to be replaced when their institutes have been abolished?* and his (1774) *Thoughts on education and public*

[26] Stefl (1902).

[27] On Anselm Desing, see Knedlik and Schrott (1999). The German title of Desing's work was *Kürtzeste Universal-Historie nach der Geographia*. Osterwald's title was *Historische Erdbeschreibung zum Gebrauche der Jugend*. After the reform, two further editions were issued – in 1781 and 1803.

[28] Before 1773, one version of Osterwald's textbook was printed in Munich (see Osterwald (1770b)). On Friedrich Samuel Osterwald (1713-1795), also Frédéric Samuel Ostervald, see, for example, Schlup (2009). The German title of Osterwald's books was *Historische Erdbeschreibung zum Gebrauche der Jugend*, see Osterwald.

[29] The German title of Dufréne's books was *Rudimenta Geographica. Opusculum Quintum. Geographischer Anfang/ Oder Kurtze und leichte Weise/ Die Catholische Jugend in der Geographie zu unterrichten/ Für die Schulen der Gesellschaft Jesu in der Ober-Teutschen Provinz. Verfasset von einem Priester erwehnter Gesellschaft.* Regarding the use of 'Protestant' books, the Bavarian education reformer Johann Adam Freyherr von Ickstatt (1774), for example, refers to the "reading of practical books written by Protestant teachers" in schools and universities in the Bavarian Circle before 1774 (see Ickstatt (1774), 12). That Hübner's Short Questions were used in Catholic areas is indicated by three editions published in Regensburg and Vienna in 1755, 1760, and 1767.

*lessons in schools*.[30] In the following ten years, Braun published further works which incorporated thoughts on geographical education, such as his (1775) *Catechism for children*, the (1777) *Outline for the organisation of the electoral scholarly* Gymnasium *in Ingolstadt*, and his (1783) *Pragmatic History of the school reformation in Bavaria from authentic sources*.[31]

A few Bavarian authors produced geographical textbooks. Five of these books were concerned with earth description and history of the Bavarian-Palatine states.[32] Two textbooks addressed general earth description and one Europe.[33] Concerning the independent city of Salzburg which was part of the Bavarian Circle three books with focus on Salzburg were published. [34] In Austria, only two geographical textbooks were published, including one on Styria and one on general earth description.[35] In addition, reprints of Osterwald's *Historical earth description* were issued. Due to the comparatively low number of authors in the Bavarian states and the time needed to produce textbooks, books published in the Protestant parts were also recommended for use there. For the use in middle schools ('*Realschulen*'), Braun suggested "1) the eighth chapter in the Berlin textbook, 2) *Children's geography*, from the French abbot Lenglet, Nuremberg 1769, a very useful and for children understandable work, 3) Osterwald's and Baumann's *Short outline of geography for beginners*, Homburg 1773, 4) Desing, Hübner, and Schatz need a lot of time and examination, 5) Volz's *Outline of earth description*, Stuttgart 1765, 1773, is one of the most useful geographical compendia, 6) Köhler's *Short and thorough instruction to old and middle geography*, Nuremberg 1765, very good, very exact, very useful."[36]

---

[30] Ickstatt (1774) *Akademische Rede von der stufenmäßigen Einrichtung der niedern und höhern Landschulen*. Braun (1773) *Wie sind die Plätze der PP. Jesuiten in den Schulen zu ersezzen, wenn ihr Institut aufgehoben ist?* and (1774) *Gedanken über die Erziehung und den öffentlichen Unterricht in Schulen*.

[31] The German titles were (1775) *Katechismus für Kinder*, (1777) *Entwurf der Einrichtung des churfürstlichakademischen Gymnasiums zu Ingolstadt*, (1783) *Pragmatische Geschichte der Schulreformation in Baiern aus ächten Quellen*.

[32] On Bavaria-Palentine: Westenrieder (1776, 1784a); Flurl and Pallhausen (1787); Keyser (1810a); Eisenmann (1811).

[33] On general earth description: Westenrieder (1784a); Keyser (1810b). On Europe: Westenrieder (1775).

[34] On Salzburg: Anonymous (1782); Kleinsorg (1782); Vierthaler (1796).

[35] On Styria: Kindermann (1779). On general earth description: Gerlach (1772).

[36] See Braun (1774), 172-173. It cannot be said for certain, which Berlin textbook Braun was referring to, as more than one textbook with geographical content was published in Berlin before 1774. Braun

The production of geographical textbooks in the Catholic parts of 'Germany' was thus comparatively low – also after the education reforms. In addition, a focus on regional geography was not uncommon – a further difference to Protestant authors whose textbooks often concerned the entire earth. It also shows that Protestant works were still being used in the Catholic states in the late eighteenth and early nineteenth century.

In their books, almost all later Protestant and Catholic writers and practitioners held an interest in common on questions of pedagogy and didactics – the methodologies and methods of human upbringing. Some authors had studied pedagogy and education, including Raff, Andre, and Ritter, whilst others had gained an interest through their involvement in teaching and in their recognition of education as a significant space for human improvement. The belief of Pietist pedagogues in 'educability' – the possibility of beneficial change in a child's behaviour and thinking through education – was guided by their aim to form good Christians. Non-Pietist German geography teachers and authors of geography textbooks in "Protestant Germany," saw themselves primarily as key actors in fighting 'vulgar superstition' through the circulation of knowledge and civilisation. Catholic authors writing after 1773 shared that aim. As mediators of enlightenment, both thinkers and practitioners reflected on their positions in and contributions to society, that is, the mediation of human progress. They regarded themselves as examples of the kind of human being they aimed at forming through their teachings and writings.

---

could have referred to Reccard's *Lehr-Buch…* (*Textbook…*) (1765a and the following five editions in 1766, 1770, 1777, 1782-1783), and Reccard's "*Auszug aus dem Lehr-Buche…*" (*Extract of the textbook…*) (1765b with two further editions in 1768 and 1775). Otherwise, Braun could have made reference to Sulzer's (1771) *Vorübungen zur Erweckung der Aufmerksamkeit und des Nachdenkens* (*Preparatory exercise to arouse attention and thinking*). Regarding the books by Osterwald and Baumann, there is only a geographical textbook with that title by Baumann. Osterwald only wrote a *Historische Erdbeschreibung* (*Historical earth description*), see Baumann (1768, 1773, 1790) and Osterwald (1763, 1770a, 1770b, 1776, 1778, 1783). Braun further probably referred to Desing's *Shortest universal history* (see Desing 1732, 1736, 1750, 1767), Hübner's *Short questions* (see Hübner 1693, 1755, 1760, 1764, 1767), Schatz's *Examen Geographicum* (1749, 1762, 1764, 1766), *Essence of geography* (*Kern der Geographie*) (1749, 1760, 1764, 1766, 1774) or his *First elements of geography* (*Erste Anfangs-Gründe der Geographie*) (1741, 1754). Volz's *Grundriß der Erdbeschreibung* (*Outline of earth description*) was published twice in Stuttgart in 1765 and 1773, as Braun indicates, and Köhler's *Short and thorough guidance to old and middle geography* (*Kurze und gründliche Anleitung zur alten und mittlern Geographie*) was issued and reprinted in Nuremberg numerous times between 1730 and 1772 (see Köhler (1730-1772)). In 1724, Köhler had also published a work on "new geography" – his *Anleitung zu der verbesserten Neuen Geographie* (*Guidance to an improved new geography*).

Gerhard Philipp Heinrich Norrmann, for example, vice principal and teacher in the two senior classes at the *Johanneum*, a '*Gymnasium,*' in Hamburg, described his self-understanding as role model and promoter of enlightenment knowledge in the preface of his *Geographical and historical compendium [...] a textbook and reading book for all estates* from 1785: "and I am assured and relaxed knowing that I – as human being and scholar – have endeavoured to contribute to general enlightenment despite my very limited time and my tiredness from the daily burdens. I am determined not to pause or stop any work that I have commenced but to steadily aim for completion and perfection."[37]

The state of knowledge within society was seen as an expression of the degree of society's civilisation. The thinkers involved in education, including geography teachers, had, thus, an interest in forming knowledgeable and rational civil human beings: as Adam Christian Gaspari expressed:

> The barbarous human being only knows his/her dwelling place, and is not concerned about faraway areas and distant nations; he or she is even less concerned about the shape, size, and nature of the whole terrestrial body on which we humans live and which we call 'earth,' or 'our world'. The reasonable and civilised human being longs to know what kind of building this earth, this world, is, what benefits and pleasures it comprises and generates, where and how other human beings on this earth – all our brothers – live, and how they organize themselves.[38]

Authors in the Catholic states after the reform also aimed at contributing to the improvement of learning. Catholic authors were, in contrast to their Protestant counterparts, part of state-organised changes to learning structures and institutions imitating progress in the northern and middle parts of the Holy Roman Empire. Authors such as Westenrieder were asked to produce geographical school books for the reforms which were seen as urgent since, "Catholic parents who are wealthy have been sending their sons to Protestant higher schools, if they wanted them to be taught something real and for their future maintenance useful about the sciences."[39] Besides promoting critical reason and independent thinking, the Bavarian and Austrian

[37] Norrmann (1785), preface, xiii-xiv. A '*Gymnasium*' was a secondary school that prepared for studies at universities. The "*Johanneum*" was a '*Gymnasium*' in Hamburg with a humanist approach, that is, a strong focus on old languages, especially Greek and Latin.
[38] Gaspari (1796b), 1.
[39] Braun (1773), 35. On the Bavarian state commission of textbooks, see Gruber (1900) and Stefl (1902).

reformers had an interest in increasing prosperity through improved school education. For these ambitions, the connection or 'tension,' as one scholar has called it, between religion and knowledge remained.[40] For many Catholic and Protestant geographical authors, the coexistence of science and religion was not a contradiction, as Raphael Kleinsorg's (1787) aim to "connect peoples with peoples through religion and enlightenment" expressed.[41]

### *The purposes of geographical knowledge*

Across pedagogical trends and religions, nearly all authors of geographical print – more evidently so later in the century – attributed several benefits to geographical instruction. To demonstrate the role of German geographical learning in advancing human character and society, it is helpful to differentiate between the process of, first, acquiring and understanding knowledge – what is called '*Erkenntnis*' ('cognition') in German – and, second, the state of knowing (having understood) – the 'possession' of '*Wissen*' (knowledge).[42] Geographical learning could benefit in two ways. Geographical '*Wissen*' was generally useful and could help being a good Christian and citizen. The processes of geographical knowledge acquisition, that is, to the methodologies and methods of learning (the '*Erkenntnis'*), could extend beyond these benefits and aid in reaching a states of *eudaimonia*. Whilst I attend to the former in this section, the methodologies and methods will be addressed in the next two sections.

Geographical knowledge – the possession of geographical facts – was regarded as beneficial in living the life of a good human being, that is, for being a 'good' enlightened person and, often, also a 'good' Christian. A wide range of benefits was expressed. The authors' relation to religion mattered. Pietist and post-1773 Catholic writers linked geographical knowledge strongly to good moral Christian behaviour, whereas non-Pietist Protestant authors in the later eighteenth

[40] See Sparn (2005), 137.
[41] See Kleinsorg (1787), preface.
[42] Jeremy Shapiro has *outlined* in his 1972 English translation of Habermas's (1968) *Erkenntnis und Interesse* as *Knowledge and Human Interest* that even though the English language has the terms 'knowledge' and 'cognition,' epistemology is nevertheless considered as the theory of 'knowing'. In German and French, in contrast, epistemology is translated as '*Erkenntnis*' and '*connaissance*', as it stands for the process of understanding – as opposed to '*Wissen'* and 'savoir' which signify the state of knowing (see Shapiro in Habermas (1972), 319, ''Part One', footnote 1).

century stressed rather the benefits for everyday life and polite sociability. In general, the commonplace emphasis placed upon geographical knowledge in developing knowledgeable, rational, civilised, and useful members of society had four characteristics. Geographical knowledge was, first, considered "generally useful and necessary" in that it supported various every-day and professional activities, and aided the study of other knowledge. Second, some authors considered geography a support for Christian faith. Third, geography was held to generate polite social behaviour and patriotic sentiments. Finally, geography could generate positive emotions and 'good' moral behaviour.

These general benefits of geographical learning were highlighted repeatedly, in one way or another in almost every publication on geographical instruction. Norrmann's emphasis on geography's universal utility for every citizen at every age and for every activity reflects the fundamental character ascribed to geographical knowledge: "The utility of geography is extremely general. To know one's dwelling place is the first and worthiest matter of human curiosity. Geography is necessary for all estates, for all relations and occupations; it is necessary and useful for every age and every kind of knowledge."[43] As for many authors, Norrmann depicted the activities and professions for which geographical facts were considered not only useful, but fundamental. "A geographical-historical course seems to be particularly necessary; for many years, I have taught geography to many young people with pure minds, and who saw their future in the sciences, in trade, civil service and other affairs."[44] The idea of universal utility was employed in many authors in arguing for an improvement in geographical instruction.

Earlier eighteenth-century Bavarian authors considered geographical facts as mostly useful for future scholars and "prospective poets."[45] With the turn towards scientific improvement and the instruction of 'real' sciences, later eighteenth-century Catholic authors, in contrast, highlighted general benefits of geographical knowledge similar to their Protestant counterparts. Westenrieder tried to advocate the utility of geographical knowledge not only by describing it as useful and necessary but also by calling its acquisition a "life duty." Westenrieder argued, "so it always remains the

[43] Norrmann (1785), introduction, vi.
[44] Norrmann (1785), preface, iii.
[45] Dufréne (1729 and 1740), preface.

duty of every human being – if he [sic] is not completely without all feeling, without all abilities, – always the life duty of a citizen to ask himself where he is, with whom he [sic] lives here, and to get to know, search, and use the things that exist."[46]

Geography was commonly considered the basis to other forms of knowledge and useful to their study. The Göttingen professor of philosophy Johann Georg Heinrich Feder argued,

> I consider geography the most natural basis to the main part of our knowledges – in the same way as the earth is the ground that carries everything. […] It does not only provide the most important foundation and ground for history – and how much does this term comprise –, for natural sciences, mathematics, religion, and ethics. And I know from my own experience that it can even be a fruitful impulse and guidance when learning foreign languages. By being taught how the Frenchman, the Italian pronounces the names of his [sic] towns and countries, does one not also learn the rules of language in the most unsought and pleasant way?[47]

Geographical knowledge was considered particularly necessary in preparation of any kind of university studies. Herder stressed, "A student will fall behind in the sciences of the academy, if he [sic] does not bring along school knowledge of the basic sciences […] geography, history, and natural history."[48] Because geographical knowledge was seen as fundamental to other subjects, geographical lessons were used to link geography to those other fields of knowledge.[49] This is particularly reflected in debates around 'pure' or 'natural' geography. These debates – most strongly towards the late eighteenth century – concerned the focus on 'natural' instead of political boundaries, the understanding of geography and its objectives.[50] Concerning geographical education, these debates resulted in questions of the content of geography lessons. Those authors who favoured a 'pure' geography argued that different kinds of knowledge had only been added in order to make geography lessons more interesting. Friedrich Wilhelm Lindner, teacher at a secondary civic school (a "*Bürgerschule*") in Leipzig was one adherent of this position: "Soon geography was conceived of as technology, soon as natural history, soon as cultural

[46] Westenrieder (1776), preface, 4.
[47] See preface by Feder in Raff (1776). For biographical information on Feder, see Müller (1961).
[48] Herder (1764), 68.
[49] Hager (1774). Hager emphasised the need to know geography to understand other subjects, including all kinds of 'old' and 'new' literature.
[50] See Plewe (1986), 36; Schultz (1980).

history and statistics. There exist many writings that present geography in this colourful mixture. – This science was never taught as pure geography: Educators always presented it in this mixture because they believed that geography would lose their interest, if they did not add something from all the other sciences."[51] Others countered positions such as Lindner's by arguing for the inseparability of geography and other knowledge. Carl Ritter directly opposed Lindner's view, "To the contrary [to the idea of a 'pure' geography], it [geography] is the band of the world of nature and humans, inseparable from both, because it is the most necessary feature and first condition of both. I claim: it is completely impossible to depict one of the three items – geography, natural history, and history along with ethnography – separately from each other in any satisfying way.[52] Ritter considered them instead "sisters who walk arm in arm towards one goal, the universe, and who can only acquire this goal with combined forces."[53] Other expressed the danger – or fear – of geography lessons losing their main focus and turning into an "encyclopedia," or worse, a "chaos of sciences," as Gaspari phrased it: "If one wanted to weave natural history or technology into the presentation, one would turn geography into an encyclopedia or a chaos of sciences; because by the same token one could knead in almost all science, and not teach geography anymore."[54]

Geographical knowledge was also used in the context of other lessons. Geography was used in modern language learning ('*Realsprachen*') and catechetical or religious lessons. Geographical information supported language learning, as the title of two of Schulze's books suggest. Schulze published a *French-geographical reading book. For the purpose of modern language-teaching* and his equivalent for English lessons, an *English-geographical reading book. A suitable excerpt of the best English travel accounts and other geographical works, arranged for the use of English-language classes*.[55] Schulz's combination of geographical and modern language learning was appreciated. An anonymous reviewer praised Schulze's books

[51] Lindner (1806), 265.
[52] Ritter (1806), 206.
[53] Ritter (1806), 205.
[54] See Gaspari (1800), 57.
[55] Schulze's French reading book also had the subtitle '*A suitable excerpt of the best French travel accounts and other geographical works.*'

as innovative: "The combination of language lessons and general useful subject knowledge counts among the most essential improvements of our school system."[56]

In Bavaria and Austria before the reforms, geographical knowledge – especially mathematical and historical geography – was reckoned particularly useful for theological, historical, and other authorial scholarly training, including poetry: "Because geography is one eye of history, and it [geography] sheds a not inconsiderable amount of light on poetry, we have written this fifth little geographical work particularly for the benefit of those who attend the fifth grade in our school [*Gymnasii*] and want to specialise in history and poetry."[57] After the reforms, particularly the connection with history, especially universal and patriotic history, was emphasised. "Geography cannot be separated from historical instruction," Braun stressed, and, nine years later, he reinforced, his view: "geography always corresponds with the matters of history." [58]

Geographical instruction was often present in religious instruction. Geographical knowledge was seen as beneficial for the fortification of faith. Anton Friedrich Büsching saw geography's greatest purpose in demonstrating the existence and greatness of the Abrahamic God: "the knowledge of God, the creator and preserver of all things, is eminently promoted by this science."[59] Büsching believed geographical and knowledge and research to lead to gnosis – a view which he inherited from his teacher, the Pietist theologian August Hermann Francke who had strengthened pietism in Halle and influenced many Enlightenment scientists.[60] Büsching's link between geographical knowledge and the affirmation of Judeo-Christian faith was shared by several other authors. A significant number of Protestant pastors carried out geographical instruction and research: besides Büsching, for example, Eberhard David Hauber, Johann Reinhold Forster, and Johann Gottfried Herder.[61] Whilst Büsching and several other scholars placed great emphasis on divine revelation through geographical knowledge, several later

[56] Anonymous (1788). See also Osterwald (1770 and 1783), preface, who emphasised the use of historical geography for future scholars.
[57] Dufréne (1729 and 1740), preface.
[58] Braun (1774), 171, and Braun (1783), 186.
[59] Büsching (1762), 1.
[60] See Beck (1982), 52, 106.
[61] See Plewe (1986), 26-48.

(Protestant) authors often only mentioned the Abrahamic God in their preface without stressing the connection between geography and faith.

Büttner has suggested that since the beginning of the eighteenth century such physico-theology was carried out by many geographers in schools and school books.[62] And Ernst Plewe has argued that several scholars after Francke used piety to justify the geographical research which often entered the realm of previously secret state information; other scholars have, in contrast, referred to such pietism as theodicy, as a means to justify the existence of God and human suffering on earth.[63] Reasons and motivations for the link between geography and Christian faith varied. Religion served as justification for geographical instruction but the question of benefactor and beneficiary cannot be answered for every single teacher of the subject. This direct link was only 'broken' in theory by secular geographers who countered the physico-theologians. It has been argued that Immanuel Kant ought to be recognised as the second key figure for separating geography from theology after Bartholomäus Keckermann (1572-1609). Kant regarded geography as theologically neutral.[64] Despite Kant's writings, geographical learning in connection with religion and faith – as advocated by Büsching – was quite common.

In Catholic Germany, the link between geographical knowledge and belief was also explicit. In serving religion and faith, geographical knowledge was linked to an improvement of peaceful and harmonious social behaviour. Westenrieder stated: "A good earth description is one of the most important books in which we obtain evidence about the providence of God which elevates our heart, […] even if we just remain with our terrestrial body and observe what it presents to us: everywhere we will find phenomena that sweep us along to worship, to the love of God, and which must encourage love and harmony amongst ourselves."[65]

Third, geographical knowledge was considered necessary for the improvement of social and patriotic behaviour. That required the understanding of contemporary and past literatures: periodicals, such as newspapers, journals, and magazines, and books ought to aid "the nowadays so-widespread-activity of reading

[62] See Büttner (1998).
[63] See Plewe (1986), 209. Authors who have related Francke's pietism to theodicy are, for example, Hettner (1927), Kühn (1939), and Büttner (1998).
[64] See Büttner (1998) and Elden and Mendieta (2011).
[65] Westenrieder (1775), introduction.

and the often thereupon built social conversations in which almost all men take part, including the lowest man. They all find daily new nourishment in the great amount of newspapers, journals, flyers, novels or romanticised stories, pocketbooks of all kinds, folk literature, improved calendars etc."[66] Being able to read and to comprehend contemporary and past literatures was seen as useful and necessary for the informed public, and for two main reasons: learning was, first, an indicator for personal and societal enlightenment. Second, consumption of scientific and geographical literature enabled a learned citizen to take part in and to contribute to polite social conversations (see chapter 5).

Geographical knowledge was also considered important in developing patriotic loyalty. Being familiar with the geography of one's homeland ('*Vaterland*') the Holy Roman Empire and one's state and imperative circle, was considered supportive for the development of patriotic sentiments. Geographical instruction was considered "to help Germans of all estates to acquire a correct and precise knowledge of their homeland, to acquaint them with the merits of their homeland and to thereby inspire a reasonable national pride and patriotism".[67] Patriotism was beneficial in improving the individual's will and motivation to contribute to activities to society. Patriotism, in turn, motivated geographical learning. Gaspari considered it a patriot's duty to be up-to-date with geographical and political changes and political situations ("*Zustände*"). "It is simply an obligation to teach oneself about this [geographical advancements and changes] in order to grow fond of the constitution of one's homeland, to give account of one's loyalty, and to be able to judge political events."[68] Bavarian authors stressed the need to enhance patriotism through geographical knowledge. The understanding of "*Vaterland*" in this case included both, the Holy Roman Empire and the Bavarian states. An increase in time spent on the geography of the two was expected to increase "love for the homeland," as Braun's statement shows: Geographical instruction ought to include a discussion of "all four parts of the world," "especially however the German empire and Bavaria our homeland [*Vaterland*]. One spends, of course, most time there. The duties against our homeland [*Vaterland*] demand by themselves that we get closer

[66] Gaspari (1800), 10.
[67] Norrmann (1785), preface, viii-xi.
[68] Gaspari (1800), 14.

acquainted with it; and it depends thereon that young people are instilled with love for their *Vaterland* early on."[69]

Towards the end of the century, emotional and moral elements were increasingly mentioned. Knowing the earth was understood to generate joy, aesthetic appreciation, and moral behaviour in addition to rational behaviour and utility. This argument was mainly brought forward by Neohumanist thinkers. As Neohumanist, Herder emphasised the moral, aesthetic, and emotional benefits of geographical knowledge. In 1784, Herder gave his school speech 'On the charm, usefulness, and need for the study of geography' as teacher and minister for schools of the duchy of Saxe-Weimar to of pupils of the Wilhelm-Ernst-Gymnasium in Weimar.[70] Herder advocated learning and teaching geography in schools not only by emphasising the propaedeutic nature of geographical knowledge and its universal usefulness, but also because geography's potential to improve the human character and society. Herder stressed the benefits for aesthetics, the "true and the beautiful", for human and moral behaviour, and the experience of sublime joy deriving from this "music of the mind". Herder saw moral benefit in the increase of tolerance and the reduction of prejudices through geographical knowledge: "geography and history (both considered in the true and worthy scope of their meaning) were the first to help shake off several sluggish prejudices, to compare different customs and different humans, and to search for the True, the Beautiful, and the Useful, in what ever shell they may show themselves from the outside. In this way, geography and history serve the philosophy of the earth, that is, the philosophy of the morals [ethics], of the sciences, and the arts."[71] Herder ascribed geography a significant role in the search for the triumvirate of truth, beauty, and utility – the concordance between cognition, aesthetics, and purposeful action – which Herder considered the purpose of being.

The sensation of joy was described as comparable to sentiments generated by music or well-written literature: "It [geography] gives a young man part of the sublime joy we feel when we read the dream of Scipio by Cicero or listen to a sublime music: because this knowledge is a true music of the mind."[72] The use of the

[69] Braun (1783), 186.
[70] The mentioned title was given later. See Birkenhauer (2001), 12 and Günzel (2005) on the bibliographical information for Herder's speech.
[71] Herder (1784), 65.
[72] Herder (1784), 63.

term "sublime" indicates, again, the entanglement of feelings and aesthetics – the experience of noble emotions through embodied experience. The experience of beauty and the consequential emotions were considered to lead to better moral behaviour, a common understanding amongst several German philosophers during the eighteenth century.[73] Herder, nevertheless, placed scientific cognition – gained through rational thinking or and empirical observation – above feeling. Emotions ought to be experienced but eventually also explained: "From the greatest unity of the principles of nature an unmeasured array of geographical consequences becomes obvious, which we sense and enjoy every day and for which every civilised person wishes explanation."[74] Overall, Herder compared geography with a perfect – ideal – painting: "Verily, geography must become to him [the student] a formidable painting full of art, potentials, variety, yes indeed, full of teachings of wisdom, humanity, and religion."[75] Acquiring geographical knowledge would, therefore, support the aspiration of forming a holistic – an ideal – person, similar to a perfect painting. Geography could connect the different realms of knowledge, and the different aspects of being. According to Herder, geography affected all elements: the mind, the heart and the soul. It brought enlightenment – a widening of the mind – joy and felicity, and it could "broaden" "his soul": "it [the child] would be a stupid monstrosity, if it did not receive ideas in the head and a great or refined feeling in the heart."[76] And finally, "Oh, how will the young man's view rise, how will his soul broaden."[77]

The view that geographical knowledge could improve aesthetic appreciation was also expressed in textbooks published for the use in Bavaria. In contrast to books published in the dominantly Protestant parts, beauty was related not only to the earth but also to the entire cosmos. This suggests a connection of learning geography in combination with cosmography. Osterwald's editions printed in the Bavarian states in 1770, 1776, and 1783 included an additional comment on the necessity to include at least an introduction to cosmography in geographical lessons – especially in discussing historical geography. Osterwald's reasoning was a recognition of the

[73] Guyer (2007); Kerscher (2013), esp. 141-145.
[74] Herder (1784), 63.
[75] Herder (1784), 65.
[76] Herder (1784), 65.
[77] Herder (1784), 64.

beauty of the universe – an appreciation of its aesthetic appearance: "Also knowing the movement of the celestial bodies. Their position to one another and their relationship with the earth account for an essential part of earth description; it is necessary for those who want to own her in her beauty."[78]

Catholic authors also linked geographical knowledge and moral behaviour. Westenrieder geographical knowledge could develop the virtues, such as tolerance, humbleness, modesty, ambition, eagerness, as well as reason: "And already the mere sight of the uncountable objects that are closely connected in their infinite diversity must have the ability to awaken a young human being, to make him [sic] attentive to foreign merits, emulating, humble against the merits of his own country [*Land*], unbiased, just, and indulgent against all human beings, and altogether several years earlier useful and sensible. This must be the spirit of the teacher, and eventually the benefit of the student."[79] As with works by Neohumanist authors, Bavarian textbooks stressed both the development of reason and feeling – of mind and heart. One Bavarian edition of Osterwald's *Historical earth description* emphasised the benefits of geographical knowledge: "That chronology, earth description, and history are sciences which form heart and mind, which blaze the trial to other sciences, are pleasant for all, useful for the most, and for many estates necessary, is just a truth."[80] In these editions, the "heart" even preceded the "mind," which suggests an emphasis on emotion. Westenrieder stressed that with geographical knowledge, one learned "to think just and lovingly of the whole world."[81] He further mentioned to include information "that finds its way into the heart."[82] He stressed that geographical and cosmographic knowledge would "expand the heart of a human being": "There is no other science which has such great power to expand the heart of a human being, to pull him [sic] away from the thoughtless and sluggish adherence to the nugatory things of this earthly life."[83] As the Bavarian edition of Osterwald's book linked aesthetic appreciation also to the universe, so did Westenrieder in terms of

[78] Osterwald (1770b, 1776), preface. A discussion of the different understandings of beauty would be generally insightful, is however omitted due to the nature of the chapter's argument.
[79] Westenrieder (1776), preface, 5-6.
[80] Osterwald (1776), preface.
[81] Westenrieder (1776), preface, 9.
[82] Westenrieder (1776), preface, 7.
[83] Westenrieder (1808), 315. The book *Nützliche Kenntnisse für die Jugend. Ein Lehr- und Lesebuch* (*Useful knowledge for the youth. A textbook and reading* book) does not mention an author. It has been suggested before, however, that Westenrieder was the author (see Gruber (1900)).

geography's capacity to promote sympathy and empathy. The connection of the benefits of geographical and cosmographic knowledge in terms of aesthetics and warmth was related to the appreciation of God's work – the creation of the cosmos, including the earth. Knowledge about the creation could lead to an appreciation, "feeling" of God's love and "omnipotence and wisdom and infinity."[84]

The different perspectives on emotions suggest the conviction of some writers that not only reason but also the heart – emotions, aesthetic appreciation, moral behaviour and feelings such as empathy and sympathy – could be affected by geographical (and cosmographic) knowledge. Flurl and Pallhausen explicitly expressed the aim to "contribute to the formation of the juvenile heart."[85] Textbooks published for the use in the Bavarian states connected emotions with an appreciation of God's love. Neohumanist writers in the Protestant parts, who attributed a similar potential to geographical knowledge similar potentials, were less motivated by religion. Their aim was the formation of well-rounded human beings.

There is, as I have shown, evidence that geography's content had value in promoting and improving human character. Authors publishing in the Protestant states in the last third of the century and in the Catholic states after the prohibition of the Jesuit Order in 1773 argued that geographical knowledge could help form enlightened and patriotic human beings able to comprehend past and contemporary publications, engage in informed social discussions, and succeed in their chosen path in life. Whilst almost all writers made reference to geography's link to religion, the strengthening of faith through geographical knowledge was the primary aim of early eighteenth-century Protestant – particularly Pietist – and Catholic authors – before and after the reforms in the 1770s. Late Bavarian, Austrian, and Neohumanist authors also stressed that geographical facts supported the understanding of other realms of useful knowledge, generated sublime emotions, improved taste and ethics, and led to growth of the human soul. The variety of the benefits shows that geographical instruction in schools and at home was relevant for different aspects of

[84] Westenrieder (1808), 315. The notions of sympathy and empathy might be related to concepts developed by English and Scottish authors (see further below).
[85] See Flurl and Pallhausen (1797), preface to the second edition, xix.

improving individual enlightenment and social progress – "for the refinement of humankind."[86]

### *Criticism of the state of the art of geographical education*

As geographical knowledge was considered relevant for many aspects of life, the state of the art of its instruction was reflected upon and criticised by many authors in the second half of the century. Almost all publications on geographical education included comments on deficiencies in geographical teaching and suggestions for improvement. Criticisms most often addressed the poor standard of teaching equipment, and the quality of instruction related to the lack of 'appropriate' methodologies and methods and insufficient teacher training.

One of the earliest and most explicit critics of the state of the art of geographical education was Johann Georg Hager. Hager argued in the preface of his periodical *Geographical Library* in 1764 that geography was undervalued and poorly taught in many German schools. Hager particularly pointed to the lack of geography teachers and the consequential poor knowledge of many students: this he believed also brought about incomplete knowledge of related fields, especially history. He considered it insufficient to teach geography only once and at an early age – the state of the art as it was known to him. Yet, by 1791, Gaspari still bemoaned the state of geographical instruction in schools. Equipment was limited, missing or poor in quality. With the exception of a few, most schools across the German secondary civic schools ('*Bürgerschulen*') had insufficient teaching hours devoted to geography. Gaspari considered an average of forty hours per year unsatisfactory. "It is known that some schools have an appropriate organisation of these necessary sciences; yet in how many other [schools] it may not look as reasonable at all! What can a teacher do with those poor forty hours that are annually given to geography?"[87] In addition to the lack of appropriate textbooks, Gaspari saw a great shortage in maps and globes. He suggested that the lack of sufficient equipment was primarily a problem of financial capacities and physical access. The "wretched shortage of money which oppresses so many good minds," resulted in a shortage of geographical teaching equipment. Gaspari stated that in some schools, geography lessons were

[86] Andre (1790), 29.
[87] Gaspari (1800), 18.

sometimes carried out without any map "without which," however, "the entire lessons remains fruitless, dead, and futile.[88] In addition, Gaspari pointed out that many schools had no access to good bookstores so that students did not even have the chance to buy teaching tools. The use of equipment in geography lessons was regarded as particularly serious, as it impoverished the instruction. Under such conditions, Gaspari saw the entire geographical science and its future in danger: "With such an execution, it is all over with the instruction of this indispensable science."[89]

After the abolition of the Society of Jesus in the Bavarian and Austrian states in 1773, criticism of the previous presence and methods of geographical instruction was made explicit. The Bavarian turn towards instruction in 'real' subjects led to a greater appreciation of geographical instruction and the adaptation of methods used in the Protestant states in order to counteract the "unfortunate shape of our lower and higher schools."[90] Braun clearly demanded a shift in focus: "Since all these matters of history, geography and so on are as necessary as knowing the German, Latin, and Greek language, they must not be regarded as arbitrary minor matters but as principal matters. One must not be satisfied with hasty or superficial knowledge of the young man."[91] Braun suggested that the Jesuits' rare geographical instruction and inefficient teaching methods were partly responsible for geography's low status: "The Jesuits said, we are also teaching all this. They taught it randomly in some places, yet in a way, that the instruction had almost no more effect than if it had not been taught at all."[92]

In 1774, Hager had pointed to insufficiencies regarding the 'how' of geographical instruction, especially that geography was taught "with indifference" in schools. Hager spoke of a need to prevent the return of "barbarism" by continuing the improvement of geographical learning. Some years later, Gaspari argued that besides lack of time and equipment, many educated men complained about "poor lessons" in geography. Gaspari suggested two reasons: teachers either lacked the necessary knowledge or the competence in choosing the appropriate scope of content

[88] Gaspari (1800), 19.
[89] Gaspari (1800), 18.
[90] Ickstatt (1774), 12.
[91] Braun (1774), 288.
[92] Braun (1773), 18.

and methods of teaching in order to be understood and to "have the most useful effect," which, he argued, "is the purpose of every instruction." Gaspari understood "method" as the choice of scope and effective teaching techniques.[93]

Hager and Gaspari were not alone. The methodologies and methods of geographical instruction were increasingly widely and comprehensively discussed by many authors of geographical textbooks. Authors often used the books' prefaces to comment on methods or to elaborate on their preferred mode of teaching throughout the text. Additionally, several authors occasionally included lengthy sections on the geographical method of teaching, the "*geographische Lehrart*," or published speeches and essays particularly designed to enhance the mode of teaching.[94] In the post-reform Bavarian Circle, methods used in the Protestant states were copied. Methodologies and methods of geographical instruction were commented on in textbooks on geography, such as Westenrieder's, and in publications and speeches on the improvement of instruction more generally, especially by Braun.[95]

Overall, criticism can be divided into what might be seen as the methodology of teaching – the overarching plan or strategy for geography teaching – and the concrete techniques (methods) of teaching. Regarding the first, several authors made the case for criteria-based instruction. This position meant adopting content and techniques relative to a child's age, place, time, abilities, social status, and future profession. Improvement of teaching methods addressed the techniques of narrating or reading, concrete exercises, and the combination of lecture and equipment – especially textbooks, maps, copperplates, and mineral cabinets.

The writers' interest in the 'how' of teaching sometimes even seemed to exceed their interest in the 'what'.[96] Förschler und Hahne have recently pointed out that eighteenth-century philosophers, scientists, and encyclopaedists often placed

[93] Hager (1774), preface, in Hager (1764-78) and Gaspari (1791), 1.
[94] Dassel (1791).
[95] See the prefaces in Westenrieder (1775, 1776, 1784a) and Braun (1773, 1774, 1777, 1784) on geographical methods of instruction. See Ickstadt (1774) on an improvement of school instruction more generally.
[96] Förschler und Hahne (2013b) point out that the methods of cognition – of gaining or communicating knowledge – were often given greater weight than the actual knowledge amongst eighteenth-century philosophers, scientists and encyclopedists. 'Method' – at the time meaning the underlying strategy and the concrete techniques of knowledge acquisition. Förschler and Hahne (2013a, 2013b) suggest that methods were themselves a form of knowledge (*Wissensform*) which enables and organises modes of cognition and knowledge communication (see Förschler and Hahne (2013b), 13-15).

greater emphasis on the methodologies and methods of cognition – the methods of gaining and communicating knowledge – than on the actual knowledge. 'Method' meant at the time both the underlying strategy and the techniques of knowledge acquisition. These researchers suggest that methods were understood as a form of knowledge ('*Wissensform*') which enabled and organised modes of cognition and knowledge communication.[97] Eighteenth-century authors' interest in improving the methods of geographical instruction reflect an appreciation of categorising, ordering, and planning with respect to the formation of human character. In order to scrutinize the 'how' of eighteenth-century German geographical instruction, the next sections focus on the methodologies and methods of instruction respectively.

## The methodologies of teaching geography

This section illustrates changes in the methodologies of geographical teaching in the second half of the eighteenth century, and discusses how these changes related to the understanding of geography and the intended results of education. Particular focus will be on criteria-based instruction. Following a general introduction, three of its main aspects – geography in relation to age, place, and estate – and its relation to ideas of human development shall be discussed.

The conviction that private and school instruction ought to be relative to certain criteria – was shared by several late eighteenth-century writers. In the Protestant states, two advocates of this relative teaching approach were Friedrich Gedicke and Adam Christian Gaspari. The teacher and professor Gaspari wrote his book *About methodic instruction in geography and the appropriate auxiliary tools thereto* first in 1789 for his application as vice principal at the *Gymnasium Johanneum* in Hamburg. Gaspari was not employed at the *Johanneum*. His book, however, received positive feedback although it was at first only circulated in manuscript form. Gaspari published the work in 1791 and again several times until 1819. He based his argument and ideas on several years of experience in teaching

[97] See Förschler and Hahne (2013a, 2013b) and on method as a form of knowledge Förschler and Hahne (2013b), 13-15. The sixteenth-century humanist scholar Peter Ramus (Pierre de la Ramée, 1515-1572) has been highlighted as a key figure in developing techniques of organisation and classification of knowledge. Ramus's dialectic order of knowledge is also known as the Ramist method. On Ramus, see Tang (2008), esp. 39-41, Heffernan (2005), and Ong (2005).

geography in schools.[98] The Prussian Friedrich Gedicke, in contrast, regarded geography not only with the eyes of a teacher, but also from the perspective of a headmaster and state politician interested in reforming and improving education in Prussia.[99] In 1779, Gedicke wrote his treatise on *Thoughts on the method in geographical lessons*, wherein he praised the benefits for children's development inherent in geographical instruction if carried out with an 'appropriate' methodology.[100] Gedicke had prepared his treatise as the invitation letter for his inauguration as headmaster in the *Friedrichswerdersches Gymnasium*, a humanist *Gymnasium* in Berlin in 1779. It was published in 1798 by Friedrich Unger who edited a collection of Gedicke's speeches and writings.

Both authors stressed the importance of instructing geography in relation to certain criteria. Gaspari suggested different lessons according to three criteria – age, abilities, and future social position. He argued, "It is generally recognised that the presentation of every science ought to be geared to the age, ability, and the likely career of the student; [it is well recognised] that the presentation of every science ought to be different at universities, different at schools, and different for a future scholar than for a future merchant. Nonetheless, this undisputed truth it is often sinned against. Nonetheless, one hears so often that teachers in higher and lower schools do not offer a good presentation!"[101] In contrast to Gaspari, Gedicke placed emphasis also on instruction corresponding to the student's place: "The geographical method has to be relativistic, as actually every instruction should be. Meanwhile, there are several relations that require consideration here, especially the following four: the relation of age, of future estate, of time, and of place [geographical location]."[102]

Both authors aimed at designing more holistic and appropriate modes of teaching geography. Whilst Gedicke focused on offering a broad methodological framework, Gaspari proposed an entire curriculum of four courses. Attention to the work of Gaspari and Gedicke shows differing emphases within their positions.

---

[98] See Gaspari's five editions from 1789, 1791, 1796, 1800, and 1819. See also the reviews in the *Allgemeine Literaturzeitung (*anonymous (1791, 1797, and 1802)), and Ratzel (1878).
[99] Gedicke was responsible for several reforms in the Prussian education system during the late eighteenth century (see Gedicke (1781, 1788a, 1788b, 1791, 1796, 1798)) and Borinski (1964).
[100] See Gedicke (1798) and on Gedicke, see Borinski (1964).
[101] Gaspari (1791); Gaspari (1800), 1.
[102] Gedicke (1798), 4.

Gedicke advocated a Neohumanist position, Gaspari adhering to enlightened philanthropism.[103]

### *The 'relativism' of age, place, and social position*

First, it was argued, geographical instruction should be adjusted to a child's age. Geographical education was placed at a relatively early stage of a child's development and numerous books on "children's geography" or "geography for children" were published. Geographical instruction commenced during childhood and often before the age of twelve.[104] It was given a propaedeutical role – due to its perceived relative "simple" and yet "noble" and, hence, useful character.[105] Andre even called it "one of the simplest of all sciences".[106] Gedicke related early geographical instruction to the psychology of human development and emphasised geography's benefits for early child development: "Without geographical knowledge the human being is a mole churning around in his hole, unable to see his way forward or back. For this one reason alone, geography must be among the first kinds of knowledge acquired one of the first bits of nourishment for the human soul awakening from its unconscious slumber."[107] Gedicke saw clear purpose in early geographical teachings: the potential to "awaken the soul", to bring the mole out of darkness, to form human beings keen on seeing "light", on becoming enlightened cognitively. He called it the "slumber of unconscious" from which the soul needed to be woken:

> Every human should therefore be introduced to it [geography] and the knowledge of nature earlier than to any other sphere of education, earlier even than in the whirl of language learning, neither excluding learning how to read in the native language. The first question that occurs to the individual first starting to think is this one: where am I? It arises earlier than this one: who am I? The former is the question of external feeling, the latter of internal. But it is the course of nature that a human being first looks around him- or herself and only later onto and inside him- or herself. If only I and nothing else was in the world, I doubt I would ever become aware of my

[103] Additionally, also other authors who held relativist positions – even if less holistically in their approaches – will be included in the discussion.
[104] Children were considered all human beings between the age of one and twelve (see Andre (1790), 23-24).
[105] Andre (1790), 88. See also Gaspari (1787), 5, and Hager (1751), preface.
[106] Andre (1790), 88.
[107] Gedicke (1798), 1-2. Translation compared with and taken from Tang (2008), 144.

> selfness [*Ichheit*]. But I am probably deviating much from the topic at hand. It is just my mistake – if it is a mistake at all – to try and trace back every methodology to general psychological principles.[108]

The Göttingen professor of philosophy Johann Georg Heinrich Feder who wrote the preface to Raff's (1776) *Geography for Children* likewise suggested that geography – which he considered to be a repeated imaginary journey – ought to begin as early as possible in a child's upbringing. The "journey" was to be undertaken several times in life.[109] The first "trip" ought to happen as soon as a child was familiar with basic geographical concepts.[110] He stated, "This journey, however, that needs to be undertaken uncountable times throughout the whole life and with different intentions, can be started as soon as a child knows a stock of terms and the ability to acquire new terms him- or herself."[111] This metaphor of proceeding in the form of an imagined journey was shared by several other scholars.[112] Besides arguing for beginning geographical instruction at an early age, authors pointed out that geography ought to be taught throughout a student's school career. Geography was considered beneficial and necessary during the student's entire school career. Gaspari called it the "most important principle of the methodology" to "go according to the students' abilities and needs."[113]

Gaspari argued that it was necessary to construct a holistic plan – a series of school courses – in order to ensure effective geographical content across age. He contended that such a comprehensive teaching plan was missing – a gap which Gaspari aimed to fill. "An important gap still remains to be filled: to bring the entire juvenile instruction in geography under one perspective, to differentiate it according to age and abilities of the students, to correctly link the separated parts to one another, and to make the whole building of juvenile geography teaching solid, convenient, and consistent in this way."[114] He, therefore, developed a plan of up to four courses ("*Cursus*") the study of geography, three of which ought to happen during school time, and the fourth one at universities.

---

[108] Gedicke (1798), 2. Translation in part taken from Tang (2008), 144.
[109] Ferders in Raff (1776), preface.
[110] See Mittler and Wangerin (2004).
[111] Feders in Raff (1776), preface.
[112] See Anonymous (1770 and 1776), Glandorff (1784).
[113] Gaspari (1800), 3.
[114] Gaspari (1796a), 4, see also Gaspari (1789) and his later editions.

The first course was to begin with a short introduction to mathematical geography, as Gaspari argued that the child was able to well comprehend "the easiest proof of the earth's shape" – a position that was challenged by several other scholars advocating what I want to call a 'relativist' teaching methodology, a methodology that ought to relate to the child's age, place, and social status.[115] The child ought to get an impression of how "large objects" can be "represented on a small scale" – on a globe, a planiglobe, and a map.[116] A small globe should also be used "on which one does a journey around the world with him [sic]", explaining the poles, the earth's axis, the equator, the different times of the day, and part of the celestial alignment. The course should then proceed to introducing the "fundamentals" of the "components of the earth, the nature of its surface."[117] This included a discussion of different inhabitants, countries, realms, and states. Every part of the world, and especially European countries, ought to be discussed with respect to "grandeur, location, and boundaries," size […], main mountain chains and rivers, the most distinguished products […] the inhabitants' way of living, favourite pastime, and main features of the inhabitants' character, besides the capital only those cities that are often mentioned […] and the sovereigns of the European states."[118]

The second "*Cursus*" was to include everything omitted in the first, and should focus on the needs of the middle-class and bourgeois merchants. It strongly centred on products of trade and the economic and political situation of the countries.[119] It included further an introduction to astronomy. It encompassed more details on mathematical, physical, and political geography, especially on mountains, rives, volcanoes, weather and climate, languages, religions, customs, governments and their history, and the history of geographical discoveries.[120] The second course ought to be the more detailed in all these aspects if a school did not teach the third course.[121]

---

[115] Gaspari (1800), 33.
[116] Gaspari (1800), 33.
[117] Gaspari (1800), 34.
[118] Gaspari (1800), 34. Gaspari asks to describe the "*Würde*" of every country, which I have translated as "grandeur" to reflect his reference to every country's state of political, cultural and scientific advancement and importance.
[119] See Gaspari (1800), 35-36.
[120] Gaspari promoted the instruction of history and the history of geographical explorations in geography lessons.
[121] See Gaspari (1800), 35-39.

The third course started with a systematic instruction on mathematical geography or the "science of the globe" and with general concepts of astronomy. Gaspari considered that important since "this part of geography is most neglected in later times" due to a lack of money and time at universities.[122] He regarded elaborations on physical geography, in contrast, as unnecessary, as they were "usually read [listened to] in a course of physics at the university."[123] Yet, an overview of all natural kingdoms with only a reference to natural history was considered useful. The third course ideally entailed study of the location of all navigable rivers and channels, details about all important mines and particular mountain ranges, about towns and their boroughs, particular trade products, natural curiosities, and famous artwork, as well as references to literature for further study. This course further addressed the history of the states ('*Staatengeschichte*') and statistics, which Gaspari considered part of political geography. Finally, it included an overview of the state of scientific progress: "the state of the sciences and fine arts and of the religious and church constitutions must even less be neglected, since the lecture is mostly dedicated to [the future university] student."[124]

Gedicke likewise stressed the need to adapt difficulty of content and methods to a child's age. Gedicke considered it appropriate to begin with what the student could comprehend and make sense of, and hence not necessarily with what was considered fundamental to the science. In contrast to Gaspari, he opposed the instruction of mathematical geographical early in a child's development. A young child was not yet able to conceive the associated concepts and would only misapprehend it:

> Every age needs its own geography or, more firmly, the boundaries of geographical instruction expand with the progress of age. Child- and boyhood need an own and different geography than the age of youth, and there also remains a clear borderline between the geography of this age and that of adolescence which should not be transgressed. But how are these landmarks displaced in usual [geography] lessons? To give just one example: terms of

[122] Gaspari (1800), 44.
[123] Gaspari (1800), 45. The German verb '*hören*' – to listen to – reflects the role of lectures at German universities at the time. The English translation 'to read,' however, puts more weight on the student's engagement with – the self-study of the literature.
[124] Gaspari (1800), 49. Gaspari, hence, advocated the teaching of related subjects such as astronomy, history, and also an overview of the state of the sciences. He considered it to much, however, to also teach natural history and technology.

> mathematical geography do absolutely not belong to geography for children or boys. And yet, one generally starts by explaining to the attentively listening boy what the equator and pole are, what the meridian is, and the length and breadth [longitude and latitude] of a location are. What does the student think about those abstract terms? Still good if he does not think anything at all; but usually, he thinks something completely wrong and, not uncommonly, something rather comical.[125]

Instead of beginning with mathematical geography, Gedicke suggested starting with political and physical geography. With reference to the development of the 'human soul,' he advocated applying what was called the 'analytical' method of instruction: to begin with special knowledge before going to general and abstract concepts, "From effect to the cause – this is the natural course of the soul. From cause to effect (the synthetic method) is the course of art."[126]

> But mathematical geography is the foundation of political and physical geography. To first teach political and physical geography would be as absurd as building roof and gable before the foundation stone has been laid.' Apparently enough! If only the human soul did have the habit of building differently than bricklayers and carpenters do; not like them upwards but downwards. In a nutshell: the analytical method is the one most natural for the soul.[127]

Gedicke was not alone in holding this position. Johann Ernst Fabri suggested in his (1790) *New elementary textbook* that abstract and conceptual thinking, such as mathematical geography, were not appropriate for children between the age of ten to twelve. Fabri recommended beginning geographical instruction with empirical facts – knowledge conceived through the senses. The historian, geographer and *Gymnasium* teacher in Gotha, Georg August Galletti, argued similarly in his (1790) *Textbook for Geography or* Erdkunde. Galletti advocated the deferral of abstract teaching and the use of the analytical method: "Mathematical geography is absolutely not suitable for newcomers in this science [geography]. One ought to explain only that what can entirely be conceived through the senses."[128]

[125] Gedicke (1798), 4.
[126] Gedicke (1798), 6.
[127] Gedicke (1798), 6.
[128] Galletti (1790), preface.

The great majority of German writers favoured the 'synthetic' method over the analytical one. Most geography textbooks which were written and used as guides for geography lessons began with an introduction to mathematical geography before dwelling on political and physical geography, as Christian Carl Andre's words show. "Almost all authors of geographical textbooks and, most exquisitely, Raff have followed the synthetical method: I can only praise Mr Fabri who knew very rightly how to project his thoughts into the nature of a child's mind that is not yet trained in thinking, abstracting, nor surveying, he [Fabri] therefore went the analytical way. He went from the special to the general, from the known to the unknown. In my opinion this is the appropriate course of a learning mind."[129]

The debate regarding the relationship between age and order of content continued until the nineteenth century. Even then, Carl Ritter stressed the need to proceed from the special to the general in elementary geography lessons: "These remarks indicate that the most natural method is the one which knows how to combine all these different matters into one whole; this is also the one [method] which – following the nature of the matter – leads from the special to the general. It is the one which helps the child to first study and orientate itself in reality, the place where it lives and learns to see."[130]

The discussion regarding the distribution of content over different courses was not only related to age. The turn towards nature and 'pure' geography at the *fin de siècle* included arguments for a first and primary teaching of physical geography – before political geography. Herder stressed, "it is called earth description: therefore, knowledge about the earth and especially physical geography is necessary."[131] Christian Gottfried Daniel Stein, writer and professor at a school in Berlin, recommended "eminently for the first course a detailed acquaintance with the main

[129] Andre (1790), 60. Introductions to mathematical geography before learning about other parts of geography were often justified as preparation for the subsequent imaginary mental journey. Early eighteenth-century authors argued that every journey ought to start with a suitable preparation, for which reason a brief introduction to the shape of the world – by help of mathematical geography – was necessary. "As much as a traveller makes several preparations before he leaves, one has to remind oneself of several necessary matters about the terrestrial globe in general before one starts a geographical journey on the map. Therefore, our Mister V. has started by first saying something about the earth's natural state, its rotation, figure, size, its number of inhabitants, its mathematical scaling, waters, dry land, weather, fertility, its products and their [the inhabitants'] civil constitution." See Hager (1775), 385-386.
[130] See Ritter (1806), 207.
[131] Herder (1784), 63.

mountains, rivers and products."[132] The rationale was to choose "natural classificatory factors, and pre-eminently mountains, valleys, oceans, and rivers," in order to "counteract the variations facing when working in geography."[133] Stein's second course was designed around political geography. The theology professor and university vice-chancellor August Hermann Niemeyer's shared this notion: "Once pupils have memorised the course of mountains and rivers and the location of countries until they are unforgettable, and once they have, at the same time, learned to properly orient themselves at any given point, then they will subsequently also learn to orient themselves more easily in the changes caused by the political upheavals."[134] This reversal in content order was not directly justified with reference to age. The preference to teach invariant facts first was, nevertheless, intended to ease the student's comprehension and memory, which was considered suitable to the child's abilities as well as its age.

***Location and the order of geography as imagined journey***

The student's location was considered important in terms of geographical instruction that is, particularly, the order in which countries were taught. Gedicke argued that 'place' ought to be taken as the most important determinant regarding content and method of a geography lesson: "Most important is the relation of place, of the place where teacher and apprentice stand. That [location] primarily defines the order of countries and maps."[135]

For most of the eighteenth century, the content of German geography textbooks and compendia mostly began with a general description of the world and an introduction to mathematical geography. It was then followed by a discussion of Europe and, finally, a presentation of countries by continent. That presentation started with Europe and what was considered the 'Evening' – the 'West' – of Europe: Portugal and Spain. The work of Johann Hübner was mentioned as a reference point for this method. Hübner published different geographical compendia and textbooks from the late seventeenth until the middle of the eighteenth century.

[132] Stein (1811), preface, iv. For bibliographical information on Stein, see Ratzel (1893).
[133] Stein (1811), preface, iiii.
[134] See Niemeyer in Stein (1811), preface, vi. For bibliographical information on Niemeyer, see Binder (1886).
[135] Gedicke (1798), 6-7.

These publications and their numerous re-editions served as the main reference points for geographical instruction. His books *Short questions from old and new geography* (1693-1764) and his *Complete Geography* [*Vollständige Geographie*] (1710-1756) were widely used. Hübner organised the content of those works from "West" to "East," from "evening" to "morning". Later authors, therefore, referred to this order as the 'Hübner method' or 'Hübner order.' The Strasbourg-based *Gymnasium* teacher and librarian Johann Jacob Schatz (also Schatzen) described: "The vast majority [of writers] namely keeps the order with Mister Hübner and discusses 1) the planiglobe, 2) Europe, 3) Portugal, 4) Spain, 5) France, 6) Great Britain, 7) the Netherlands, 8) Switzerland, 9) Italy, 10) Germany ["*Deutschland*"] etc. and then also the remaining realms and parts of the world." [136]

For many late eighteenth-century authors aimed at improving society through education, including geographical lessons, Hübner's approach was rejected as unsuitable for the child by several educators – especially by those authors who favoured an analytical method of instruction. The starting point of a geographical discussion ought to be the 'local,' the 'familiar,' the 'home'. 'Home' then meant the known country, state, and dwelling place, that is, "Germany" and the student's respective state, town or place of birth. Hübner's order did not start with the 'local'.[137] Johann Jakob Schatzen advised against Hübner's method, suggesting that it had been widely used and become popular, since it was an order that followed "the natural position" of the countries: "But perhaps someone wants to say that Hübner's way of ordering may be excusable because, in this way, on realm after another is dealt studied based on its natural location from evening to morning – an order which is quasi given by nature self."[138] Gedicke considered Hübner's method an inefficient way of learning, and of engaging the student's time and energy. Using the image of an imaginary adventurer, Gedicke stated that the common method (Hübner's) resulted only in mental exhaustion.

> It is palpable, how unnatural the usual order is. What is it that one almost always starts with? With the general world map. On this map, the student is

[136] Schatzen (1776a), preface, 8.
[137] During the second half of the *nineteenth* century that understanding of local environment would feed into the emergence of the term and concept '*Heimat*' – the 'homeland' characterised by a local "feeling of belonging together" (see Applegate (1990), x).
[138] Schatzen (1776a), preface, 8.

> being hurried through Asia, Africa, and America. He [sic] then finally gets to Europe, but first he has to go on a short walk through this entire part of the world, before he is being introduced to the more particular knowledge of the countries [*Länderkenntnis*]. But exactly this special knowledge of the countries leads the German boy first to Portugal and Spain and France – and I do not even know myself whereto – until the poor and exhausted adventurer finally lands where he should have started from – in Germany. What a strange journey![139]

He argued that this 'synthetic', or 'common', method resulted only in oblivion, not in stimulating the student's interest and imagination. To illustrate the result of the teaching method, Gedicke used the image of a 'jog trot,' a person who wasted time and energy:

> The jog trot has anyway his own and rather strange postal course in the whole methodology. From abstractions to ideas of the senses [*Sinnideen*], from the general to the particular, from memorisation to – forgetting. What will he care if wheel and axletree break on the road! With the whip in his hand he drives over hedge and ditch; the wagon must surely be trailing behind. Seriously, how on earth can one believe that the knowledge of Portugal and Spain can be of any importance to a boy who does not even know anything about his fatherland yet! The knowledge of foreign countries only becomes important to him by previously knowing about his own fatherland, certainly not the other way around. But go on![140]

Gedicke further argued that the logic of this method was, consequentially, not only inappropriate on the scale of continents and countries but also on the level of states and regions, and, especially on the local scale:

> When he has arrived safely in Germany, the Brandenburg boy has to, after all, make again a giant jump to the Austrian, the Bavarian, and the Swabian Circle, and then to this or that Circle, until he finally gets to the Upper Saxon one. Would it not be more natural, if he started from his particular fatherland [circle] and, from there, continued travelling to the adjoining provinces? A Berliner should hence first get to know Berlin with all those features that are relativistically important regarding his [sic] age, estate, and time; then [he should get to know] the rest of the margravate, then possibly Pomerania, Prussia, Silesia, of its [the Prussian] king Westphalian lands, then Saxonia and the for the Prussian loyal subject so important Bohemia, and so on.[141]

[139] Gedicke (1798), 7.
[140] Gedicke (1798), 7.
[141] Gedicke (1798), 7-8.

Others used the image of the travelling or hiking student to justify the benefits of beginning with the known environment. André argued that it was important to teach as if one was following a travel route. That implied a sequence of countries without leaps and repeated visits.[142] Gedicke described such orders as 'natural' – in contrast to earlier authors who had regarded the 'west-east' order as 'natural'. Gedicke argued, "If the teacher wants to follow the order of nature, then he ought to lead his pupil from local and regional knowledge, which are so important to him, to general geography."[143]

The idea of beginning geography lessons with a child's direct geographical environment had been adopted from Jean Jacques Rousseau and his *Emile – ou de l'éducation* (1762), a treatise on education that received great attention and appreciation amongst German pedagogues and teachers.[144] One German scholar has described Rousseau's *Emile* as "a key work of this pedagogical debate," and as "the most influential piece of pedagogical writing of the eighteenth century."[145] Rousseau proposed avoiding forms of abstract thinking in a child's early education. Instead, he suggested beginning with teaching content which the child could comprehend and relate to such as his or her direct environment. Mirroring Rousseau, most authors who advocated the analytical method beginning with the homeland were motivated by the aim to make geographical instruction effective and appropriate to a child's interest and knowledge. Another justification for the importance of place and an altered order was political interest. Beginning with the 'local' could bring greater attention to the fatherland and to patriotic sentiments.

Schatzen followed that argumentation. He rejected Hübner's order by arguing that it resulted in insufficient knowledge about the homeland. Too much time was spent on discussing other countries which resulted in a lack of time for discussing the "*Vaterland*": "With what excuse is a German expected to learn geography by first passing through mostly all other realms in Europe before giving him the opportunity to get to know Germany, his fatherland, in more detail?"[146]

[142] See Andre (1790), 67.
[143] Gedicke (1798), 9.
[144] See, for example, Möller (1986), Hübner (1953).
[145] Möller (1986), 133.
[146] Schatzen (1776), preface, 7.

> If the same geographies had been written for the Portuguese and the Spanish, then I did not (have to) complain about this order because it would be more than right that these nations – right after having gained a general understanding of the planiglobe and Europe – were first concerned with the knowledge of their fatherland – and then with getting to know the bordering countries; from where one progresses to further and further distant lands. Those need to be laughed at, who spend effort and costs to visit foreign and faraway countries, whilst still being a foreigner in their own fatherland.[147]

Galletti saw a practical reason for this order: "From the fatherland one hikes to the neighbours. The closer a country is to us, the more it interests us. So France must have a completely different interest for us Germans than Spain or Portugal. Another advantage of this order is that one does not have to search for long for the next country on the map." [148]

In 1774, the Bavarian reformer Braun likewise suggested that instruction ought to be relative to place. He argued that local constitutions and circumstances affected local instruction. As a consequence, comments on teaching strategies and content ought to be made only by experienced and knowledgeable compatriots. Not even the most distinguished foreign writers should be consulted on that matter: "The main characteristics of a good plan are that it is as simple and comprehensible as possible and above all suitable for the country [*Land*] where it is to be introduced. It is certainly difficult to make suggestions on this matter on which not even great foreign geniuses can give us good suggestions, since they are not familiar with our constitution and our conditions."[149]

Similar to the suggestion of Protestant authors, "place" had different scales. Braun's reference to "constitution" indicates an understanding of place as "country," "circle," or "state." Other comments by Braun indicate that location also referred to town, villages, and schools. Braun demanded that lessons and knowledge dissemination ought to be carried out "according to the local circumstances of every place."[150] Westenrieder likewise stressed the need for attention to local place. The preface to his textbook from 1784 stated: "I want to give no other reminders to this

[147] Schatzen (1776), preface, 8.
[148] Galletti (1790), 5.
[149] Braun (1774), 16.
[150] Braun (1783), 242.

work than the ones every intelligent teacher – who knows the local needs for which it is intended –would make himself beforehand."[151]

Several authors writing in the Catholic states after 1773, hence, only made general statements on the importance of order. As their Protestant counterparts, Catholic authors postulated gradual instruction in terms of difficulty, which implied teaching practical contents and subjects before abstracts and theoretical ones. Geography was understood as a subject that primarily involved the senses and was, hence, less difficult. It nevertheless required numerous courses: "Even geography, history, and instructions in Christianity etc. cannot be comprehended and learned in one go."[152] The general importance of gradual instruction was stressed: "One leads the student progressively. Since everything one has to learn is connected in a chain from which no item can be separated without disarray [*Unordnung*], a teacher must not choose by his arbitrariness what part he wants to teach without bringing disarray and disruption in the system and the whole."[153]

As Hübner's textbooks were used in Catholic states, the "traditional" order that began the discussion of Europe with Portugal and Spain was still present. In one textbook on Europe, Westenrieder changed the order and began with northern European countries, before moving to middle European countries and, only finally, did he consider '*Deutschland*'.[154] The few textbooks published in the Bavarian state often began with a short introduction to mathematical geography and a brief discussion of the world, Asia, Africa, and America before moving to Europe, "Germany" ("*Teutschland*"), and Bavaria.[155] This order was, hence, less 'radical' – or less 'local' – than Gedicke's suggestion; it was closer to what Gaspari postulated. Whilst Protestant authors often linked place and order of instruction, beginning with the direct local environment in Rousseauean sense, Bavarian authors such as Westenrieder offered only a certain textbook order and general criteria, but left

[151] Westenrieder (1784a), preface.
[152] Braun (1774), 15.
[153] Braun (1774), 15-16.
[154] The beginning with northern European countries somewhat resembles Büsching's order which began with Denmark (see Büsching (1754-1792)).
[155] See Westenrieder (1784a).

decisions to local teachers and to those actors constructing or reforming school constitutions.[156]

For Gaspari, there was not one universal methodology. He extended his 'relativism' to the methodologies and methods of instruction more generally: "And eventually – I must confess my disbelief in the unrestricted usability of any method under all circumstances. I rather believe that even the best method needs to be modified according to the given circumstances by every teacher who is not only a parroter."[157] Gaspari feared that teachers would act and teach like "machines" that just read out a given script instead of being independent, responsible, thinking – enlightened – lecturers and personalities.[158] Gaspari saw uniformity and standardisation as the "deadly enemy of the freedom of the mind and good taste."[159]

For Gaspari, thus, a teacher's freedom to choose his teaching methodology was ultimately primary for Gaspari. The guiding goal ought to be the preservation and further development of his students' freedom of mind. Gaspari's 'relativist' position concerning the choice of teaching methodology and his reference to the freedom of mind reflect what has been termed a "distinctive German 'inwardness'" during the eighteenth century.[160] "Inwardness" signifies the focus on change through personal development in thinking and the aspiration of freedom primarily in the mind (*Geist*) (internally) and not – or less – socially and politically (externally), and especially not through revolution. In the eighteenth-century German states, moral freedom was implicitly understood as 'freedom to' – 'freedom to think, to participate, and to find one's spiritual path. Political freedom, in contrast, was 'freedom from' – freedom from the influence of the political authority in private and intellectual life.[161]

This inward focus concerning change and improvement – the conviction that progress in society had to begin with progress of the individual – was reflected in discourses on instructing and learning geography. It was an emphasis on the development of ideally 'all' inner mental faculties ('*Fähigkeiten*') of the 'soul' –

[156] See Braun (1774) and Ickstatt (1777).
[157] Gaspari (1796a), 50-51.
[158] See Gaspari (1796a), 2-3, and Gaspari (1800), 51.
[159] See Gaspari (1796a), 2-3.
[160] See Blackbourn (2012), 11.
[161] Oz-Salzberger (1995), especially p.52.

especially reasoned thinking, memory and imagination ('*Einbildungskraft*'). Those abilities were considered necessary for a eudemonic and socially useful life. German "inwardness" also signifies prioritisation of the inner self. Gedicke stressed the importance to familiarise the child with its ambient world (the 'outside') in order to later develop and get to know the 'inside' – the 'self'. Geographical instruction was, hence, part of personal development just as geography was long considered a propaedeutic to other sciences (chapter 4).

These debates around the order of geographical content further reflect the German scholars' and teachers' adherence to the existing order of society. Most geographical authors were not interested in changing the social and political structures. Freedom and change were sought for rather in one's inner self. The "outside" – the political and social situation of life – was considered as rather fixed. The expressed claims for changing the order of geography's content can be understood as cautious attempts to bring about change in education and thus to form enlightened citizens. Education was the means to make human beings responsible, enlightened, free in their mind, and "*mündig*" (come to age), as Kant postulated.[162] A well-educated citizen ought not to rebel against society but rather contributed to its functioning, both in Protestant and in Catholic states. Political and social restrictions were, therefore, to be compensated by 'inner' freedom (see chapter 7).[163]

### *Geography and the student's social status*

The tension between personal happiness and social utility, between a free spirit and political and social bondage is further demonstrated in authors' comments on the relationship between a student's social position and the content of geographical education. Whilst Protestant authors, such as Gedicke and Gaspari, advocated the development of a free mind, they supported a relativism of geographical instruction with respect to social position and future profession. In the post-1773 Catholic states, inner freedom was less directly addressed. Yet, there too, was a focus on independent thinking and personal enlightenment – in connection with Catholic belief.

[162] See Kant (1784).
[163] On the eighteenth-century German aim of inner freedom and perfection see Hammerstein (2005), 394, Koselleck (1975), 384, and Reill (1975), 7-8, 180. On the late eighteenth-century German "conflation of perfection and progression," see Prüfer (2002), 173, 188.

For Gaspari, content, order, and methods of geographical instruction needed to be adjusted to a child's social status and future profession. He varied scope, content, and number of courses accordingly. For Gaspari, the higher the social position, the more education in geography was necessary. During secondary (school) education, he suggested assigning the three outlined courses of geographical knowledge only for future scholars. Two courses were sufficient for the nobility and all "men of culture and taste," and one course for the growing educated middle class, the bourgeoisie.[164] The lower classes were not mentioned in his texts, since they did not require geographical education, according to Gaspari.

For Gedicke, "the relation of the estate which the student is born into has no less bearing on the geographical method."[165] He suggested that the content of school instruction needed to be differentiated according to future professions, such as future scholars, business men, soldiers, and sailors. Gedicke did not break differences down into years or hours of instruction, nor did he explicitly mention members of lower estates – such as farmers or craftsmen.[166] He stated, however, that geography ought to be taught in all schools, including "*Landschulen*" (rural or country schools): "Of course it [geography] is therefore an indispensable subject for all schools, from the grammar school to the country school [*Landschule*]."[167] In contrast to Gaspari, Gedicke suggested geographical education for students of all social estates. A few other authors similarly argued that geography needed to be taught to all social classes. Fabri emphasised the need to teach geography to "all estates." Positions, such as Gedicke's and Fabri's were shared by several authors and teachers. These were perception of geographical instruction was less elitist that Gaspari's.[168] Yet, the scope of content and the hours of geographical lessons were described as relative to the student's need – relative to what he needed to know in his future profession.[169]

Andre argued that the "how" of geographical lessons needed to be differentiated by the "main classes of the estates."[170] He distinguished between three

[164] Gaspari (1800), 8.
[165] Gedicke (1798), 6.
[166] Gedicke (1798), 6.
[167] Gedicke (1798), 1. See also Reccard (1765a) *Except of a textbook… for the use in* Land-Schulen.
[168] See Schatzen (1776a), Glandorff (1784), Andre (1790).
[169] See Fabri (1790).
[170] Andre (1790), 40, 41.

classes: "1) peasants, 2) citizens [*Bürger*], 3) middle and higher estates."[171] Andre suggested that for every estate different geography textbooks should be produced. His "peasant geography" would "only or mainly" include "an overview of the condition of the farmer and economic characteristics of the entire surface of the earth." The "bourgeois geography" would entail "the manifold, urban constitutions and technological features." Textbooks for all other estates highlighted more than economic or technological information and gave "an overview about the entire geography [*Erdbeschreibung*] with all its fertile, manifold branches."[172] Andre then further differentiated the "middle and higher estates according to different professions and future destinies," that is, to make a distinction, for example, between merchants, soldiers, artists, theologians, or the "female estate".

With the beginning of education reforms in 1773, Braun made clear that any changes would not address current socio-political structures: "We want to commemorate the equilibrium in which estates should stand to one another in well-organised states, if one estate does not want to be engulfed by another."[173] With the Bavarian reforms, a new structure of schools was introduced which related to different estates. Braun explained, "the classification of instruction follows now automatically. It will be spoken about, I. '*Trivial*'-schools, II. '*Real*'-schools, and finally III. about '*Studi[a] humaniori[a]*', or the so-called Latin schools."[174] These different schools were connected and the student could attend up to all three depending on the student's estate and his or her future profession.

Ickstatt distinguished between four types of schools. His structure resembled Braun's with the only difference that Ickstatt divided "*Trivial*-schools" into "*Dorfschulen*" (village or country schools) and "*Markt- und kleine Stadtschulen*" (market and small town schools).[175] The "lowest class of subjects is the peasantry, or the peasant estate" who ought to attend the former school for three to four years.[176] Peasants were not admitted into universities because any further school education was for them considered unnecessary. All other estates had the potential chance to

[171] Andre (1790), 41.
[172] Andre (1790), 41.
[173] Braun (1773), 36.
[174] Braun (1774), 15.
[175] Ickstatt (1774), 23 and 28.
[176] Ickstatt (1774), 23.

pass through all school types, the "Real-schools" and the "Latin or greater *Gymnasium*".[177] Scope and focus of geographical instruction varied by school type and, hence, by the pupil's estate.[178]

Geographical instruction in the German states differed, hence, by social position. Geographical authors may, in sum, be described as politically conservative – and differed in their degree of conservatism. Geography was also taught at home. Private education, including education for girls, had been becoming popular since the late seventeenth century.[179] Teachers, including governesses, were required to have knowledge in geography. Andre even suggested an increased involvement of parents in their children's education: "everything that father and mother can do for the education of their children, must not be refrained, nor assigned to others" because "parents can conduct a great part, yes in many cases, perhaps even all instructions of their children."[180] Home education required, however, parents' knowledge and time or the necessary funds to finance private tutors. Only "the genteel […] hire a private tutor".[181] Home education could hardly be a substitute for missing geographical education at school. Hager's 1764 review of an anonymous children's geography from 1713, an appraisal of "a righteous father in the countryside who wrote this instruction for teaching his children," was the exception than the rule.[182]

### *The German adherence to order and the political status quo*

Those German thinkers interested in the improvement of geographical instruction did not do so to attack existing social structures. The emphasis on teaching geography to "all estates" – moral, personal and social – may have increased the reading public's awareness of the existing differences. In reality, this reinforced existing socio-political structures. It has been argued that most German Enlightenment scholars did not challenge the social hierarchy – in contrast to their French counterparts.[183] As

[177] Ickstatt referred to the "*Realschulen*" also as "*Teutsche Realschulen*" (German Real-schools) or "*Kleine Gymnasien*" (small *Gymnasien*) and, hence, "Latin schools" as "greater Gymnasium" (see Ickstatt (1774), 31 and 35).
[178] See Ickstatt (1774); Braun (1774), 15; Braun (1777, 1783); and the textbooks by Westenrieder (1775, 1776, 1784a) and Flurl and Pallhausen (1787, 1797).
[179] See Hardach-Pinke (1992).
[180] See Andre (1790), 29 and 30.
[181] Glandorff (1784), 4.
[182] Hager (1764), 545.
[183] Hellmuth (1990); Klippel (1990); Vierhaus (1990).

long as the educators saw their goals coinciding with the state's, the state was granted competence in matters of education. Several Enlightenment pedagogues had positions in state education: Gedicke, for example.[184] Geographical instruction was intended to improve the individual and society, but not to challenge existing social structures.

Geographical instruction for children in schools and at home was not homogenous in the German states. The evident late eighteenth-century insistence on education based on the pupils' age, place, and social position reflects an awareness and an acceptance of difference. Möller has argued, "the enlighteners [*Aufklärer*] realised the situatedness [*Standortgebundenheit*] of human cognition conditioned by descent and education, social and economic situation, religion, and history."[185] As those thinkers recognised the constructed nature of cognition, they did not see the need to change political or social circumstances. The broad acceptance of the inequality in learning did not result in claims for political or social change, not to speak of a political revolution. The recognition of the existing order and its problems did not result in a challenge of this order.[186] The overall aim was, rather, to teach humans in order to produce an orderly society. Many Enlightenment educators and, most pronounced, 'Philanthropist' educators, argued that a useful member of society would integrate into the existing order and not rebel against it; the person would fulfill his or her role in society.

Whilst several German thinkers had shown great appreciation of British and French enlightenment literature, philosophy, and science-making, many Germans opposed the radical political and social changes sought in the American and French Revolutions.[187] The French encyclopedists had not been appreciated by all German thinkers either. Herder considered the French encyclopaedias a sign of "degeneration" as they lacked original thought: "Now everybody is writing Encyclopaedias; even d'Alembert and Diderot demeaned themselves with this activity. And this work, that for the French is a success, is for me the first sign of

[184] Möller (1986), and see also Borinski (1964) on Gedicke.
[185] Möller (1986), 64.
[186] The many reform movements – especially in education, commerce, and agriculture – in the different territories of the Holy Roman Empire additionally mitigated political and economic tensions and probably a revolution (see Herrmann 2005).
[187] See, for example, Hellmuth's (1990) edition and Ahnert (2008).

their decadence. They have nothing to say, and that is why they just write *Abregés*, *Dictionnaires*, *Histories*, *Vocabulaires*, *Esprits*, *Encyclopédies*…[and so on] There are no more original works".[188]

Herder's comments may have been affected by the lack of French appreciation for him and his works. According to Reill, this motivated Herder to reinterpret enlightenment not as an end but as a means towards higher goals, such as personal freedom and humanity.[189] Anti-French (Francophobe) sentiments were common amongst the German educated and scholarly public. Herder was, however, one of several German thinkers who opposed the French encyclopedic projects.[190] Many German scholars were keen on writing their own encyclopaedic works and introducing lectures and seminars on encyclopedism ('*Wissenschaftslehre*') in universities. Opposition to the French Revolution was enormous and did not originate from anti-French sentiments. The French Revolution simply was the exact opposite to enlightenment order practised in those books of geography to be used in education.

For several German scholars, the French Revolution revealed the dialectic of enlightenment thought and virtue. The predominant emphasis on reason – on reasoned and ordered behaviour bore the danger of suppressing emotions and could eventually break out in the form of a revolution. To avoid such consequences, several eighteenth-century German thinkers cautioned against a neglect of the heart and emotions – especially Neohumanist thinkers who hoped to form "whole human beings". They cautioned against violence and terror as potential consequences of an unbalance education. Violence and terror were the exact opposite of virtue, peace, harmony, and tolerance originally envisioned and aspired to by many eighteenth-century thinkers.

## The techniques of geographical instruction

> Geography as a […] science […] does not lack any grandeur, beauty, and strength to broadly inspire, invigorate, and educate the human being – but it misses a proper mode of instruction in schools.[191]

[188] Herder 1769 "Journal meiner Reise im Jahr 1769" in Reill (2008), 284, fn 12.
[189] Herder 1769 in Reill (2008), 284.
[190] See, for example, Decker (1990), Goethschel *et al*. (1992), Donato and Maniquis (1992).
[191] Henning (1812), preface.

Johann Wilhelm Mathias Henning, teacher and seminary director, expressed this view in 1812. Henning's view held four main messages: there existed an educational aim to form the human being in manifold aspects; geography was ascribed the potential to produce the described effects; this required both knowledge and an appropriate mode of instruction; its current modes of instruction impeded these potentials. His words summarise the perspective of many authors in the last third of the eighteenth century and at the beginning of the nineteenth century.

The image of geography and the improvement of its modes of instruction played a crucial role in reaching educational aims. Many authors regarded school geography foremost as a mnemonic, a memory subject – a '*Gedächtnisfach*' – and aimed at improving comprehension and the powers of memorisation – '*Verstehen*' and '*Gedächtnislernen*'. Geographical learning ought to become more effective and productive. Some authors additionally ascribed to geography the potential to develop certain abilities also called 'faculties of the soul' ('*Seelenkräfte*'). This included faculties necessary for (later) independent learning, personal enlightenment, and cognition ('*Erkenntnis*'), such as one's independent ('*mündiges*') thinking, exact observation, judgement, and imagination. Other writers – often Philanthropists – also hoped to improve the development of a "taste for the beautiful and good," that is, for aesthetic and moral education. Neohumanist thinkers went beyond 'education to thinking' ('*Denkerziehung*') to emphasise aesthetic and moral behaviour. Their aim was the formation of well-rounded human beings – character formation ('*Menschenbildung*') – for which end in view positive effects on the 'heart' and on emotions were aspired to.

The precise meaning of the different aims – '*Denkerziehung*' '*ästhetische und moralische Erziehung*,' and '*Menschenbildung*' – often differed by person, school of thought, understanding of human nature, and the role of education. The recognition of the possibility to influence human beings was translated into a necessity, as Möller argued: Enlightenment ought to start with the child.[192] This section attends to these different educational aims, and shows that the methods of geographical instruction

[192] See Möller (1986), 135, who has argued that education was considered essential for the formation of enlightened citizens. The possibility to educate – the "Erziehungsfähigkeit" – was interpreted as an educational imperative – an "*Erziehungsnotwendigkeit*".

were tools in achieving these aims. I begin by discussing methods that were intended to combat the dullness of common geographical instruction in order to reach educational goals, before addressing questions of imagination, aesthetics, ethics, and the 'heart'.

***Combating the dullness of geographical instruction***

One scholar has considered Johann Hübner a "not to be underestimated influence" in the instruction of geography during the first two thirds of the eighteenth century, especially his *Short questions and answers from old and new geography*.[193] This book, in its numerous editions, was used for youth education for almost the whole eighteenth century.[194] As the title *Short questions and answers...* indicates, the book was mostly a catalogue of questions and answers which has nowadays been described as a "catechetical method" or a "collection of unsurmountable trivialities, lack of objectivity, and non-psychological questions."[195] Later in the eighteenth-century, when education reforms spread across the German states, Hübner's book was heavily criticised for its dullness, and the lack of attention to the student's abilities.

The late eighteenth-century discourse around the improvement of geographical teaching methods was essentially a battle against such perceived widespread dullness of geographical instruction. The monotony of the common practice of reading aloud from geography books was strongly criticised by almost all late eighteenth-century authors. For Andre, "reading is a too monotonous and uniform mode of instruction"; "the student's soul is not vigorously enough riveted".[196] This reading practice was criticised for decreasing the pupil's attention and, hence, reducing comprehension and memory. It could even lead to "the body's and soul's fatigue".[197] Education reforms in Bavaria centred on the same issues: "disgust" at teaching via memorisation, and the need to keep students' attention. "The main art of a school teacher entails fixing the child's attention to the matter he

[193] Hübner (1953), 212.
[194] Hübner (1953).
[195] See Tang (2008), 40; Hübner (1953), 212.
[196] Andre (1790), 6 and 10.
[197] Andre (1790), 24.

wants to teach," one author wrote.[198] As others stated, "the mere word-for-word memorisation causes disgust, and it is as useful as nothing, since the youth rather and more easily forgets that what is learned word for word, without reason, and with reluctance."[199] School geography had, consequentially, gained the image of a "dry study" – an image that needed to be changed.[200] Herder argued, "geography: a study that in my understanding is as dry as if I called the Ilm or the great ocean dry."[201] He blamed the common understanding of school geography as a mere "dry register of countries, rivers, borders, and towns," which he regarded as "a so dishonourably discussed and misunderstood fact knowledge." Such as study was "not only not educating, but to a great extent deterring and flaccid."[202]

Numerous improvements to teaching techniques were suggested in order to improve geography's image and to increase the students' attention and interest, including a more vivid and engaging narration style instead of only reading aloud, greater variety in content and special memory exercises, gradual progression in difficulty, repetition, independent and peer-to-peer learning, and visualisation with the help of appropriate teaching tools. The concept of a lively narration was advocated. The "tone of narration" was considered to catch and keep the younger students' attention.[203] Andre gave an elaborate explanation of his teaching style; he emphasised the need to speak with interruptions, to use the Socratic method of questions and answers to engage the students' thinking, to adjust the speed of narration to the difficulty of the topic, and to keep 'order' in the narration.

> During the lesson, I narrate discursively, that is, interrogatively, interrupting myself, asking the students for explications; in the beginning [I narrate] slowly and thoughtfully and also when entirely new and not yet fully comprehensible terms appear; [I narrate] with fast and jaunty steps when I can see that my students' minds will not face difficulties. In that way, I narrate along, without further changes, breaks or interruptions in order to keep the vivacity, attention and their validation.[204]

---

[198] Braun (1774), 34.
[199] Flurl und Pallhausen (1787), preface.
[200] Herder (1784), 62.
[201] See Herder (1784), 61. The "Ilm" is a tributary river in nowadays Thuringia, a German state, part of which belonged to the duchy Saxe-Weimar in which Herder lived and worked.
[202] Herder (1784), 62.
[203] See, for example, Andre (1790), 9.
[204] Andre (1790), 18.

The Socratic method allowed Andre to add variety to the lesson, which he considered essential as a "child's soul" did not yet have the strength to listen continuously; "breaks, interruptions, and pauses are indispensable for that reason alone that otherwise the attention will slacken too much."[205] Other authors stressed the need to speak clearly, and vividly, and suitably for the child. Gaspari suggested narrating in a way that engaged the senses and avoided "scientific expressions": "A connoisseur of our art will at times smile about my terms and phrases; yet, I rather wanted to hold up to this ridicule instead of losing clarity."[206] Order in narration was stressed as a relevant factor in improving comprehension and memorisation. Andre criticised "especially muddle and lack of order in cognition which of course greatly inhibit any longer memorisation."[207]

These perspectives were also held by authors in Catholic states. Westenrieder suggested that geography was a useful and pleasant science, and therefore needed to be taught with a "convivial," "unstudied," and "cordial" tone and facial expressions.[208] Ickstatt and Braun emphasised the need for clarity; Flurl and Pallhausen accentuated the need for "easy and good talk".[209] To engage the students' attention, Westenrieder chose the epistolary form as the presentation style for one of his textbooks where the child was travelling and writing letters to his cousin.[210] Büsching also suggested the letter form. His intention was also on the practice of the student's own narration and writing style: "Every time when the teacher has finished a journey on the map with his student, he should ask the student to narrate the content of the journey in a letter to his father or another person; and the entire sequence of travels and letters should be entered in a permanent book. This will be an excellent repetition of the geographical lesson and an exercise in style."[211] A further suggestion to keep the students' attention was to further variety in content. Hager stated that he included "all kinds of pleasant, useful, and necessary teachings from other sciences, which were an excellent way against the disgust" of a dry

[205] Andre (1790), 10.
[206] See Gaspari (1796b), preface to the first edition.
[207] Andre (1790), 21.
[208] See Westenrieder (1776), 9-10.
[209] See Ickstatt (1774); Braun (1777); Flurl und Pallhausen (1787), preface.
[210] See Westenrieder (1776).
[211] Büsching (1773), 137.

lesson.[212] This position was, as noted, later criticised by those who favoured a "pure" geography.[213] Another author suggested a mix of different practices, including listening, seeing, and reading: "In my opinion, one should, for a pleasant variation, right after reading [to the children] begin to draw the first lines of geography by the use of maps, and also let boys practice reading the newspapers."[214]

The emphasis on 'pleasant' learning and its combination with useful learning, the conjunction of joy and utility, was based on ideas introduced by John Locke in his essay *Some thoughts concerning education* (1693). Locke's ideas were well received in the German states and in other European realms and the United States.[215] A child that could comprehend and enjoy the content would learn with greater attention and, hence, enhance their memory. The child was thus prone to develop a life-long interest in learning and self-education, as it was essential for every enlightened person. Examples of these practices are particular memory exercises and visualisations with the help of appropriate aids, such as maps and sketches of landscapes or peoples.[216] Memory exercises were, for instance, intended to better differentiate between similar names or facts. The preacher candidate Carl Benjamin Schmidt suggested reducing common mistakes in geographical names by collecting similar geographical names, asking the pupil to list them next or below each other and indicating their location and distance on a map, as illustrated in figure 7.2.[217]

[212] Hager (1751), preface.
[213] See elaborations in the sections above.
[214] Hauptmann (in Hager (1775), 654).
[215] See Hübner (1953) and Brenner and Kemper (2009) for the German states. For Britain, see, Secord (1985), Mayhew (1998a, 1998b), and Withers (2007) who have highlighted the role of "Locke's legacy" in eighteenth-century Britain: "Locke's legacy to children' was in the belief that learning should be made enjoyable, and many quoted Horace to this effect: "Omne tulit punctum qui miscuit utile dulce" (Mayhew 1998a, 735). For the United States, Brückner (2006) has pointed to geography textbooks as combining literacy and entertainment, "as didactic pleasure reading" (Brückner (2006), 146).
[216] Hauptmann and Andre were advocates of content repetition: see Hauptmann (in Hager (1764 [1766]), 654, and Andre (1790).
[217] Schmidt (1795), 8.

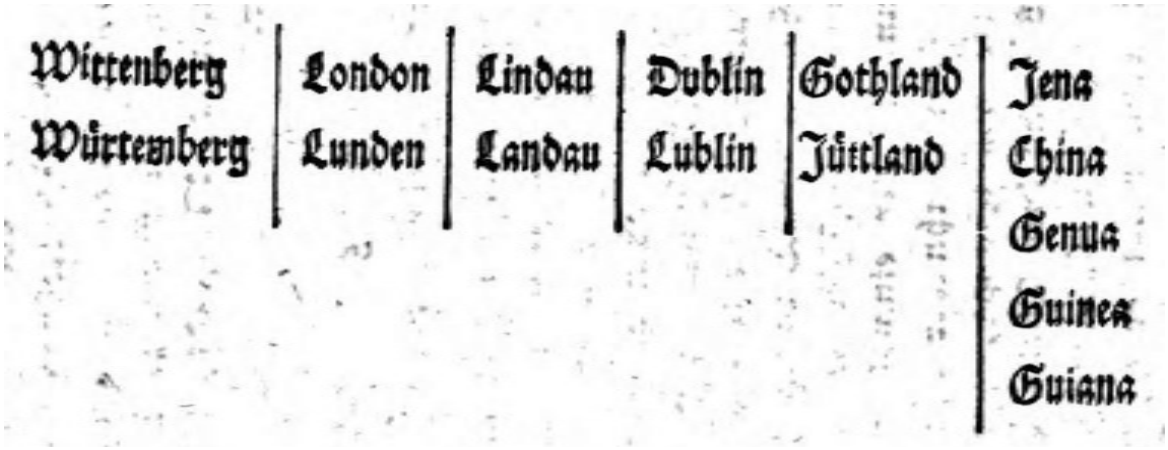



Figure 6.2. Table of geographical places with similar names to improve their memorisation, in Schmidt (1795), 9.

Other exercises included a variation in content order when repeating geographical places or names, and the use of maps without an indication of national borders nor names of natural and political names. Vice-principal Eberhard Gottlob Glandorff's world map was one such example (Figure 7.3).

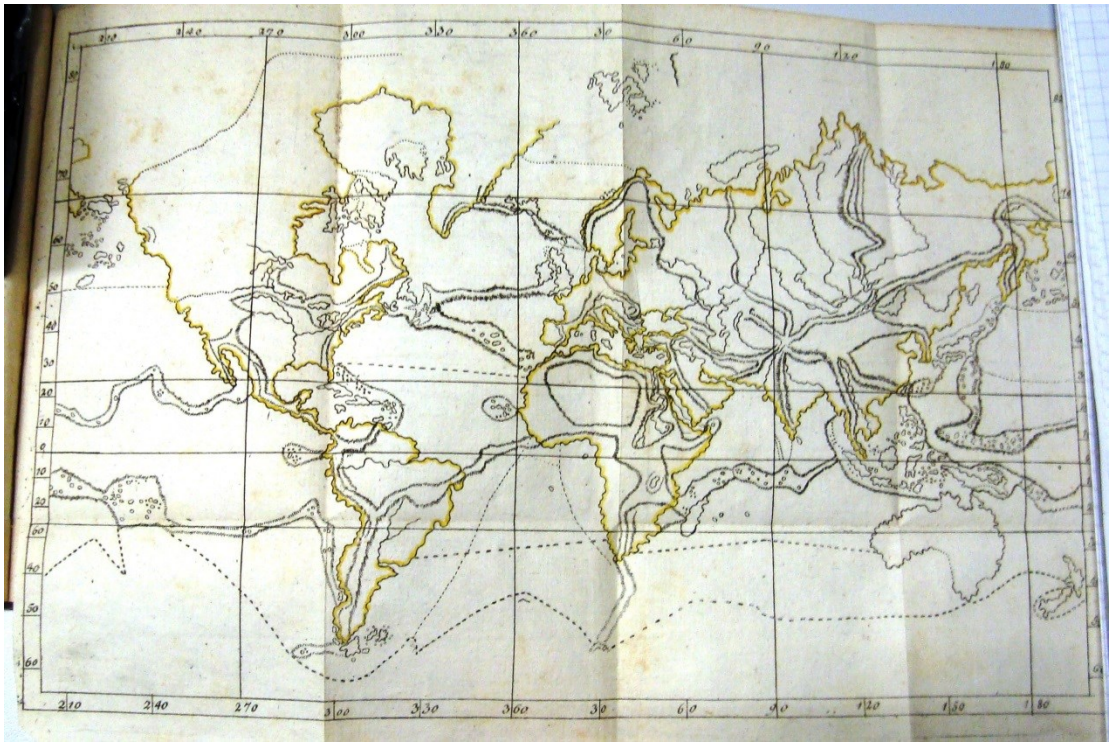


Figure 6.3. 'Small world map which only presents contours of the continents, main mountains and rivers, but no names', by Glandorff (1784).[218]

[218] Glandorff (1784), enclosed at the end of the book.

Gaspari argued that maps, globes, various copper engravings, and cabinets for minerals and coins were essential so that "sense perception" could "succour comprehension."[219] Written text needed to be complemented by illustrations. He regarded it as "undeniable" that "there are matters in geography which never become quite clear and comprehensible by mere description, but only through images."[220]

Gaspari also argued that different tools – especially maps and textbooks – should be designed for different courses and lessons. Based on his structure of three courses for school geography, he sought a map for every European country for the first course. Those maps were to present only "peculiar" and "essential" geographical matters and no names. The related textbook needed to explain these maps without being an entire discourse or a "dry register of names."[221] Maps for the second course ought to be designed to be "richer [fuller]" in remarkable objects and to show more detailed divisions of the different countries. Such maps ought further to include "product maps" containing information about the countries' products – as 'trade' and 'manufactory' maps were not yet invented.[222] Maps for the third course were to present further details of "places, rivers, mountains, and products," including their names.[223]

Gaspari also suggested the use of copper engravings ("*Kupferstiche*") as useful for different courses. Gaspari argued that these engravings ideally included imprints of towns and floor plans of edifices, images of the nations and their typical appearance, clothing, nourishment, enjoyment and customs, and particular sceneries of the countries, and technological and natural history engravings showing the countries' most prominent products.[224]

Like Gaspari, Johann Michael Friedrich Schulze emphasised the importance of visualisation or "sensualisation," as he termed it.[225] He explained that in geography "the way to reason and memory" was "through the senses."[226] Schulze also elaborated on two further "main rules" of instruction: independent student

[219] Gaspari (1800), 55; see also Gaspari (1800), 53-58.
[220] Gaspari (1800), 55.
[221] Gaspari (1800), 32. See Gaspari (1800), 20-29 for more details.
[222] Gaspari made particular reference to use the "Hommanische Charten" – maps by the Homanns', a family of map publishers (see Gaspari (1800), 37).
[223] Gaspari (1800), 43-44.
[224] Gaspari (1800), 55-57.
[225] Schulze (1787), 12.
[226] Schulze (1787), 16.

activities, and a graduation in difficulty. Schulze argued that these principles were particularly useful in order to counter boredom. Passive listening bore the danger of mental fatigue. The use of globes, maps, and other tools was "a not entirely sufficient way to captivate the attention of young and vivacious boys […] because it still does not involve actual 'self'-activity."[227] A gradual progression in content and difficulty was necessary to avoid mental strain. An ideal lesson was balanced appropriately to the student's abilities. And if a class included students of different levels, occasional peer-to-peer learning was suggested as a way of engaging all students, to promote active thinking, and allow for repetition.[228]

Schulze was not alone in this suggestion of greater independent learning. This view reflected the enlightenment aim of forming internally free and independently thinking human beings. Active engagement was valued over passivity; activity was thought to bring "fire and life" into the children. As several other authors, Andre stressed the need for "thinking for oneself, self-activity of the children's minds" with which he hoped to reach "completeness and thoroughness of cognition."[229] The aim was to educate knowledgeable, active, and responsible ("*mündig*") human beings.[230]

Late eighteenth-century Catholic authors also encouraged students' independent thinking and activity. Westenrieder advised teachers and pupils to "always place a white sheet of paper between two printed ones in order to note changes which incessantly occur in the geographical subject and to note other important things that aid the student's memory."[231] He further suggested encouraging young people to describe their places of birth and places "in the countryside where they often spend their holidays."[232] Besides offering strategies to manage changes in political geography and to improve public participation of local geographical description, Westenrieder was convinced that such independent activities would

[227] Schulze (1787), 17. Schulze uses the German word "*Selbstbeschäftigung*" to which there is not direct equivalent in English. I have translated it literally by the two parts of the noun: "*selbst*" as "self" and "*Beschäftigung*" as activity.
[228] Glandorff (1784), 11.
[229] Andre (1790), 20.
[230] Andre (1790) on independent learning.
[231] Westenrieder (1784a), preface, iv.
[232] Westenrieder (1784b), preface, iv, and Westenrieder (1784a), preface, vi.

improve memory and thinking. He argued that such activities did "not only embed better in memory but it awakens right and healthy observation and thinking."[233]

***Beyond memory: imagination, aesthetics, ethics, and the 'heart'***

Independent thinking was, as discussed above, also considered to be improved through visualisation as part of geographical lessons. Visualisation was not only used to catch students' attention and to ease their understanding but also to develop faculties, such as the imagination. Neohumanist authors particularly advocated this position. Herder stressed the benefits of the faculties of imagination and judgement which could be fostered by geographical instruction: "Through geography, history becomes quasi an illuminated map for the faculty of imagination, yes for the faculty of judgement itself: because only with its [geography's] help it becomes obvious why these and not other peoples play this and no other role on the stage of the earth."[234] Gedicke was even stronger in his emphasis on understanding geography as a subject of imagination, and not memory. He stressed that, "the most and worst mistakes in geographical instruction," "originate from the fact that geography is often regarded as a matter of mere memory and not as a matter of imagination."[235] "To what end do we learn geography? Certainly not, to have plenty of names in our head, but primarily to picture the more clearly this and that fact according to its local relations. This absolutely requires a picture envisioned by our imagination, just like an invisible map that accompanies us everywhere. Yet unfortunately, so many teachers still reduce their entire instruction – by whatever means ever – to a mere instruction of memory."[236] Some independent authors, such as Andre, recommended developing what they themed a "map of imagination": "The location of a country must be remembered especially also according to its shape on the map of imagination."[237] Particular exercises were recommended for the improvement of imagination. It was suggested that the student should sketch maps from memory. Gedicke explained, "But how can the imagination method be applied to geography? Primarily when the teacher trains his student to draw his/her own map of a country.

[233] Westenrieder (1784a), preface, iv-v.
[234] Herder (1784), 67.
[235] Gedicke (1798), 9.
[236] Gedicke (1798), 10.
[237] Andre (1790), 46.

Ideally this happens so: the teacher draws a map on the board and calls the student's attention to certain features, wherefore especially the course of a river can serve. He then erases his drawing and, with his assistance, lets the student try to do the same."[238] A similar practice was suggested and used by Andre who let his students "either during the lesson or at home, sketch the shape of countries from imagination [*Phantasie*] without a map."[239]

Andre's intention was clearly related to an improvement of memory through imagination: "so that these few ones are better remembered and become a solid standpoint in the imagination."[240] Neohumanist authors, in contrast, stressed the mere joy originating from the development and use of the imagination. Whilst highlighting the need to limit imagination by reason, that is, to let it be guided by reason, they emphasised the positive emotions that could ensue. Gedicke pointed out: "Imagination, well directed, is the mother of uncountable pleasures; it only becomes dangerous, when it tears apart the rein of reason and runs away with the human being that rejoices in the smooth gallop".[241]

Late eighteenth-century authors in Catholic states attributed similar importance to imagination, and pointed to the need "to entertain the sensuousness of the children and to break one's way to the children's reason via the faculty of imagination in a real and reasonable way."[242] At the same time, the limitations of imagination and the risks of exaggeration were highlighted. Braun contended, "the teaching method must be sensory, because it is applied to children who have little knowledge and patience. Sensory, yes, but not too sensory in order to avoid that it drifts from the pleasant to the actually effortless and facetious."[243] Braun did not see a direct connection between imagination and comprehension and memory, for which reason he opposed extensive imaginary exercises: "In the end, one only teaches terms and knowledge; terms have their place in reason and not in imagination. Imagination is only the way, not the goal. If one entertains the imagination too much, the sensuousness will indeed make the children attentive to gape, but not to

[238] Gedicke (1798), 11-12.
[239] Andre (1790), 68.
[240] Andre (1790), 54.
[241] Gedicke (1789), 10.
[242] Braun (1774), 32.
[243] Braun (1774), 32.

comprehension. When the image is removed, usually the knowledge is gone as well."[244] Braun's intention was, hence, not the joy of imagination but its relevance for understanding, thinking, and memorising.

For some authors, geographical education was a way to foster aesthetic and moral education. Johann Georg Sulzer, a Swiss philosopher who moved to Berlin in 1747 and worked as school teacher, and philosopher, argued that "two great errors" characterised education in state schools: "out of the different abilities of the soul, actually only the memory is being trained: attention, exact observation, thinking, judgment of the true, and eventually sensation of the beautiful and good are left almost unpracticed and crude. It is left to nature or chance to develop those so essential faculties of the soul."[245] Sulzer extended the educational aims clearly beyond thinking and included aesthetic and moral training. These thoughts were developed further by Philanthropist and Neohumanist pedagogues –with different intentions.[246]

Andre and Gaspari both used geographical instruction as a space to develop aesthetic appreciation and moral behaviour. They recommended selecting textbooks and geographical tools, such as maps and images, based on their "neatness," "cleanliness," and inclusion of moral comments. Andre suggested, "to mainly choose such ones with which children learn to read better, gain moral sentiments, develop a taste, certainly enjoy themselves, and can incidentally embrace all kinds of different knowledges."[247] Gaspari argued that aesthetic appreciation was an essential part of moral learning when he elaborated on his ten criteria of "good" maps. His last criterion "emphatically demanded" "neatness, cleanliness, and beauty," of maps since "one can never start early enough to develop children's taste and to awaken their feeling for beauty which is the source of the most noble pleasure and holds the first seed to all moral good without which it [the seed] cannot thrive to a ripe fruit."[248] Such good taste was a "skill" which needed to be developed "through repeated observation of beautiful objects" – such as well-designed maps, – according

[244] Braun (1774), 31-32.
[245] Sulzer (1771 [first edition from 1768]), iii. On Sulzer, see Liebmann (1894) and Möller (1986).
[246] See, for example, Brunning (2005), Götz (2008), and Brenner and Kemper (2009).
[247] Andre (1790), 25.
[248] Gaspari (1800), 29-30.

to Gaspari.[249] He, therefore, argued that "everything that is given to children in a lesson must have a certain degree of beauty, and maps must not be an insulting exception."[250]

Gaspari suggested that exposure to beautiful objects was essential for the development of good taste and morals. He argued that Germans did not appreciate art and beauty enough and demonstrated uncivilised behaviour, as they were not sufficiently exposed to beauty and forms of art. "The Italians," he argued, "are used to seeing and loving beautiful forms from childhood on. The German has no eye, no feeling for the beautiful, since it [the beautiful] is banished completely from his education. This education, from which the formation of good taste is entirely excluded, is to blame for our despicable mores and the barbarism of our people."[251]

A few writers emphasised the need to also educate the 'heart' – moral behaviour and feelings of empathy, sympathy, and sentimentalism. In 1790, Christian Konrad Dassel's text entitled *Suggestion for a new method, including both written and moral geographical instruction, not only to expand the memory, but also to enlighten the mind and form the heart* illustrates just these notions.[252] The development of positive emotions was related to ideas of sympathy and empathy and, hence, to questions of ethics and morals. When Herder stated that geography could help in finding "the true, the beautiful, and useful," he did so because it was linked to the "philosophy of customs" and because geography was a tool of his educational aspirations.[253] Whilst Neohumanist writers such as Herder opposed the utilitarian approach of their Philanthropist colleagues, they nevertheless utilised education – including geographical education – for their pedagogic goals.[254]

German thinkers further related aesthetic appreciation – here in geographical lessons – and moral behaviour. Kant was one key author on this relationship. Beauty was most often related to notions of tranquillity, order, and harmony; and it included both natural and artistic objects. Aesthetic perception and appreciation of this 'beauty' was considered to lead to positive moral actions. Beauty could, in turn, also

[249] See also Gaspari (1800), 29-30, footnotes.
[250] Gaspari (1800), 31.
[251] Gaspari (1800), 30.
[252] Dassel (1790).
[253] Herder (1784), 65.
[254] Guyer (2007).

be an expression of good morals.[255] German concepts of aesthetics, sympathy, empathy, and sentimentalism – especially as developed by Herder and Kant – were certainly related to thoughts of foreign scholars – most notably as expressed by English and Scottish scholars such as David Hume, Adam Smith, Thomas Reid, Francis Hutcheson, and Anthony Ashley Cooper, the Third Earl of Shaftesbury. These authors were widely read and well perceived among German scholars. It goes beyond the purpose and scope of this thesis to elaborate on the foreign influence of each German scholar and geographer, for which reason I am only pointing to the wider European philosophical interest in these themes.[256]

## Conclusion: geography and education

The chapter has shown the following five topics to be important. Geographical education experienced a growth of interest by several scholars over the eighteenth-century – by Protestant (especially Philanthropist and Neohumanist) and Catholic authors and teachers alike. During the second half of the century and early nineteenth century, suggestions to improve geographical education were put forward. Benefits of geographical education were considered derive from geographical knowledge, as well as the process of geographical learning – the methods and methodologies of instruction. Geographical knowledge and the process of its acquisition were considered to ease learning, to strengthen faith, improve patriotic, social and good moral behaviour, and to generate aesthetic appreciation. The stress on a 'relativist' educational methodology – different by age, place, and social position – indicates a certain degree of conservatism and an adherence to social and political structures by geographical scholars and teachers. The emphasis was on 'inner' freedom rather than political freedom. The aim to prevent a 'terror of reason' (through a one-sided education) – potentially resulting in a political terror or a revolution – was manifest in the stress on aesthetic and moral education, and the use of imagination (see chapter 7).[257]

---

[255] Guyer (2007).
[256] See, for example, Oz-Salzberger (1995) and Frazer (2010). On German aesthetic theory see also Guyer (2007) and Stoeckmann (2009).
[257] On the eighteenth-century German distaste for political revolutions and the aim for inner development, freedom, and perfection see also Paulsen (1902), 9, Reill (1975), 7-8, 180, Hammerstein (2005), 394.

The aims of improving geographical teaching techniques in the later eighteenth-century were not alone geographical but were rather part of wider education reforms and debates. As Gaspari put it: "since they have started to subject the entire educational system to a general revision, they have also thought of geography; and within ten years many works about the improvement of the method of geographical instruction appeared".[258] The changes were part of the German enlightenment aspiration for the "education of humankind".[259]

Horst Möller has pointed to a strong link between education and German enlightenment aims. He has suggested that the eighteenth-century recognition of the possibility to form educated human beings was translated into a necessity to do so. Enlightenment ought to start with the child.[260] "Pedagogy was, hence, ascribed exceptional value for the image of human nature and for the reform ambitions of the Enlightenment; only by help of an appropriate pedagogy could human beings be made better, only in that way, could the future be an enlightened age."[261] This understanding of education was present in all late eighteenth-century German states, and the methods of geographical instruction were tools to achieving these aims.

As in the case of teaching methodologies, it was accepted that different methods were applied in different places and spaces. Many authors emphasised their successful use of a method and their hope that the respective methods were introduced elsewhere. Franz stated that his textbooks had grown out of "local need for a complete course from the first to the last instruction."[262] The local focus could be related to more extensive elaborations on the local region and state. As Galetti noted, "that I do not intend to displace any other textbook in geography with mine, is proven by the setup of the same which is mainly written for the youth in the territories of Gotha. A teacher in another school can, however, construct the description of his fatherland in the same way."[263] Fabri explicitly apologised for not focusing on Upper and Lower Saxony: "To make this textbook as useful as possible

[258] Gaspari (1791), 3-4.
[259] Gaspari (1800), 40.
[260] See Möller (1986), 135, who has argued that education was considered essential for the formation of enlightened citizens. The possibility to educate – the "*Erziehungsfähigkeit*" – was interpreted as an educational imperative – an "*Erziehungsnotwendigkeit*".
[261] Möller (1986), 135.
[262] Franz (1788), preface.
[263] Galletti (1790), preface.

for German schools, I could not only write for Upper and Lower Saxon schools. It was my intention to write a convenient guide for a Franconian school just as well as for a Pomeranian and a Westphalian one."[264] Regional or state differences regarding methodologies and methods were further related to political difference. Reccard – based in Königsberg – made this explicit: "I was ordered to write in questions and answers, yet, I have constructed the book in a way that it [geography] can be taught using a tabular instruction as demanded for the Berlin textbook or catechetically or with another method."[265] These comments may also have been marketing strategies – ways to encourage audiences in other states of the usefulness of the respective textbook. For many authors, the publication of textbooks was a source of necessary income.

Geographical school instruction was therefore as diverse as the political and religious landscape of the Holy Roman Empire of the German Nation. Braun's reference to relativism in method was an expression of this "colourful" picture of geographical instruction. Geographical teaching and learning were at least as diverse as geography in the universities; as Plewe once noted, "So geography became colourful and diverse, and its description difficult."[266] What united these differences was a common belief in geography's educational potentials.

In this sense, geographical instruction was a means to what one author has called the "Re-creation of the human being" – the change in thinking and acting which, for some, would lead to an informed, well-ordered, and eudemonic society.[267] Geography in school and private instruction – the knowledge transmitted, and the methodologies and methods – was a means in that enlightened ambition, in all late-eighteenth century German states alike. The German belief in education as a key to changing behaviour and helping make enlightened societies resulted in different pedagogical schools of thought and practice. They all embraced the universal and practical benefits of geographical learning but with different purposes in mind.

The utility-focused and widely-spread Philanthropist pedagogy expressed an interest in a more efficient education suitable for the child, which stemmed from the

[264] Fabri (1786), preface.
[265] Reccard (1765b), preface, 4.
[266] Plewe (1986), 30.
[267] Herrmann (2005), 97.

advocacy of Lockean and Rousseauean principles. Neohumanist thinkers, in contrast, rejected the utilitarian paradigm and prioritised the development of 'whole' human beings. Their position grew stronger when witnessing the terror of the French Revolution which demonstrated the dangers of a solely reason-centred social contract and up-bringing. Neohumanists stressed the importance of aesthetic appreciation and positive emotions through geography. The suggestion to include aesthetic and moral education in geographical instruction was an expression of the fear of a one-sided education. Several independent authors of geography textbooks expressed a greater appreciation of one or the other position.

Authors in the Bavarian and Austrian states writing after the prohibition of the Jesuit Order in 1773 were interested in mirroring the progress in education happening in the central and northern German states. Their pedagogy was strongly connected with the Catholic religion and aimed at utilitarian education as well as humanist upbringing.

The pan-German appreciation of education had, therefore, different emphases in different places. The German appreciation of 'relativism' regarding the methodologies and methods of geographical instruction indicates an awareness of numerous factors affecting its practice. The students' age, place, and social position were each highlighted, as well as time, local conditions and needs, teacher's qualifications and abilities, besides state and local educational political provisions and decisions. For these reasons, religion itself was not the sole reason for differences in geographical education. Explanation of difference is also to be found in state politics and the choice of personnel in schools. For Bavarian reformer Ickstatt, "this pronounced difference between Catholic and Protestant Schools cannot be ascribed to the different Catholic and Protestant teachings. In France, where the Catholic religion is the dominant one, the sciences are nonetheless cultivated with good progress; not even in Italy, are they disregarded."[268]

Ickstatt argued instead that the political separation between Catholic and Protestant territorial princes and the Protestant decision to manage schools "under supervision of the state" had allowed educational advancements there. The Protestant princes could arrange their schools and school politics according to their preference.

[268] Ickstatt (1774), 10.

In the Catholic states, most notably Bavaria, schools had been governed and managed by the dominant spiritual order – the Jesuits.[269] Braun consequently suggested having school subjects – with the exception of religious teachings – not instructed by Catholic priests but by worldly people.[270] Catholic Bavarian reformers certainly had an interest in not denouncing their own belief system. The reforms demonstrate indeed that a shift towards 'real' instruction and an improvement of teaching methods was possible by changes of school constitution, management, and staffing.

Geographical instruction has been shown to be a practice with multiple facets. Teaching and learning geography at an elementary and secondary level – in private spaces and state schools alike – included speaking, narrating, reiterating and listening, showing and seeing, imagining and drawing, thinking, remembering, observing, writing, and reading. There was, of course, a difference between theory and practice, between writing about the different methods and practices and their actual implementation. As several textbook authors referred to their own described methodologies and methods, it can be assumed that the respective geographical courses were at least undertaken in their own schools. Knowing exactly how and when any such courses were delivered, and with what effect, is altogether harder to know.

Numerous books in the later part of the eighteenth century sought to promote individual and social improvement through geography. Of course, these textbooks were a source of income, and we must not forget that authors had to make a living other than through teaching. Hübner has pointed to a "deep gap between theory and practice" in eighteenth-century school geography.[271] How deep the gap really was is difficult to assess. That there was a gap, is evident. The lack of sufficient educated teachers – also in the post-reform Bavarian states – impeded the implementation of recommendations.[272]

Even so, German thinkers and pedagogues placed much emphasis on the methodologies and methods of instruction, when the mere presence and conditions of

[269] Ickstatt (1774), 14-15.
[270] Braun (1773), 35.
[271] Hübner (1953), 214.
[272] Ickstatt (1774) on the lack of school personnel who could teach the 'real' subjects right after the reforms.

the same were unsatisfying. This focus was an expression of German thinkers' awareness of their lack of influence on school politics. Only those practitioners part of state school management could trigger changes in schooling. This focus upon method and methodology was also an expression of a German enlightenment aspiration and appreciation of order and balance. The eighteenth-century ambition to direct knowledge through its encyclopaedic listing, organising, and categorising has been highlighted elsewhere.[273] The emphasis on the methods of ordering the knowledge also indicates a belief in the ability to control the development of the child. Förschler and Hahne have argued that "mastery of method was occasionally valued more than the possession of factual knowledge," since methodology and method were the tools to cognition – '*Erkenntnis*' – and truth. Method became its own form of knowledge.[274]

Belief in the "refinement of humankind" was based on the conviction to be able to produce rational human beings.[275] As social and political revolutions were not regarded as possible and neither desired, focus was on inner changes. In that sense, geographical instruction was part of the belief in inner human improvement. It was, as Mayhew has argued for Britain a "facilitator of the aims of education in the period rather than an aim in its own right."[276]

[273] See Foucault (1974).
[274] Förschler and Hahne discuss the case of Bonnot de Condillac's *Essai sur l'origine des connaissance humaines*: see Förschler and Hahne (2013b), 13.
[275] Andre (1790), 29.
[276] Mayhew (1998b), 768.

# 7

# Conclusion: 'Geography,' 'Enlightenment,' 'Germany'

## Introduction

> Thanks to divine providence! Since the beginning of this century, this science [geography] is being greatly perfected, and it is appreciated and loved by everyone according to its merit.[1]

> Geography or *Erdbeschreibung* is a science that brings great benefits to every citizen of a state, from the prince up to peasant, because it gives him precise knowledge about the mathematical, physical, and political shape [*Gestalt*] and state of our earth.[2]

These quotes by Johann Dietrich Hartmann (1762-1831), author of *Short outline of newest geography for the use in schools* (1794) point to three aspects with which this thesis has been concerned: the textual understanding of geography (such as the threefold division into mathematical, physical, and political geography), the perceived increase in the popularity of geography (amongst scholars and the public alike) as it was reflected in the increased prevalence of geographical print, and the attribution of universal benefits to geography.

This concluding chapter is divided into four sections. Section one begins by reiterating the thesis's aims and summarising the main themes and findings of the thesis. In section two, I reflect upon these findings in relation to the wider research context and recent scholarly debates. In section three, I consider the thesis's limitations and its implications for future research. The final section addresses the thesis's wider implications: 'Enlightenment,' 'Geography' and 'Germany' as 'open' and fluid categories of analysis.

[1] Hartmann (1794), preface, 3a.
[2] Hartmann (1794), preface, 2a.

## Towards a historical geography of German geography, *c.*1690 – *c.*1815

This thesis was guided by the overarching aim to explore the 'what', the 'how', and the 'where' of geography in the eighteenth-century German states. Informed by recent scholarship and debates in historical geography, science studies, Enlightenment studies, and book history, the thesis is an attempt to examine the production history and aspects of the communication history of German geography, and to add to our knowledge on the history of geography more generally in the Enlightenment. It is also an attempt to contribute to debates in historical geography, particularly concerning the relationship between geography's textual tradition and its meaning and practice in other contexts. The thesis has aimed to speak to debates in book history such as the relationship between processes and actors and forms of knowledge. It has aimed to illuminate the role of place and space in geography's making, and to place geography and the German states more securely in Enlightenment historiography.

The thesis has provided findings which allow several conclusions to be made. The thesis has shown that geography in the eighteenth-century German states was first and foremost characterised by its sedentary and lecturing nature: it was an 'arm-chair' and a 'lecture-bound' geography. 'Writing' geography, the production of geographical print, was considered and practised as the principal method of 'doing' geography. I have suggested that the German emphasis on 'writing' geography systematically was partly a way to justify the German aim for greater perceived recognition from foreign – especially British and French – counterparts who had more opportunities to participate in geographical explorations overseas. Only a very few German authors took part in foreign expeditions before the important work of Humboldt in the early nineteenth century. Alexander von Humboldt's travels to Central and Southern America with the French botanist Aimé Bonpland (1799-1804) marked a new beginning for German geographical scholarship more than it reflected and Enlightenment engagement by Germans in overseas field work.[3] Given these conditions – the limited possibilities for German scholars to join overseas geographical expedition, together with the lack of "any serious colonial interests of

[3] Beck (2012).

the German states" – the German prioritisation of 'writing' can be understood as a strategy to justify contributions to the progress of geography on a national and European level (see chapter 3).[4]

I have also shown that the science of geography had a particular "stable" textual definition: description of the earth's surface.[5] The demarcation of geography from other realms of study and the classification of geography's knowledge were, however, much debated. The most common classification of geography was the tripartite theme-division into mathematical, physical, and political geography and the division by time into 'old,' 'middle,' 'new,' and 'newest' geography. Variations of the former threefold classification included a two-fold division into mathematical and textual prose-based geography early in the eighteenth century, and 'extensions' with numerous additional categories, such as 'moral geography', 'economic geography' or 'pure geography' by authors writing at the end of the eighteenth century and in the early nineteenth century. One alternative suggestion also included the rejecting of any kind of classification of geography. These different divisions reflect, I suggested, the lack of a single interpretative textual meaning for geography despite recognition of the basic textual definition.

The thesis has also exposed geography's relationship with other 'sciences' in the Enlightenment (chapter 4). Geography was often considered different from chorography, topography, and cosmography, each of which addressed spatial matter of smaller or larger scales than the earth. Some scholars, however, regarded geography together with astronomy as part of cosmography, and topography and chorography as part of geography. These statements did not only resemble the logic of "part to whole" and "whole to part" but were the product of it.[6] Geography's relationship with other sciences was even more debated, especially with respect to statistics and history. In the last two decades of the eighteenth century, geography was commonly considered in a 'competitive' relationship to *Staatenkunde* or *Statistik*, the study of the state, which emerged during the second half of the century. Some scholars regarded statistics as part of geography, often political geography;

[4] Heidemann (2008), 257.
[5] See Mayhew (2001), 388, and his argument about geography's "stable definition" in the early modern period.
[6] Mayhew (1998a), 392.

statistics, however, developed soon as a distinct practice and university discipline. The 'competition' between geography and statistics became one of 'boundaries' between – even the 'authority' over – realms of knowledge. Questions concerning geography's relationship to history related to geography's (hierarchical) position in the system of sciences. The debate centred on the question whether geography ought to be regarded as an auxiliary – subordinate – science to history, as it had been understood for a long time, or as a science in its own right. Geography was seen by some as an historical and empirical science, equal to history in a narrow sense. Several scholars, including Immanuel Kant, suggested differentiating between history in a narrow sense as a science that 'narrates,' and geography as a science that 'describes'.[7] The variations in classifying geography and relating it to other realms of study, I have suggested, indicate the lack of a fixed paradigm in Thomas Kuhn's sense of the term.[8]

These debates on geography's relationship with other sciences were apparent in different forms of print, including books and periodicals, and in geographical lessons. In turn, the production of books and the instruction of geography could have an effect on the classification of geography. What became known as the turn to 'nature' or to 'pure' geography – the concentration on physical geography and upon the earth's physical boundaries – had its origins in geography's 'competition' with other sciences and arose from a perceived practical need for geography to be useful. The aim was to become less dependent on the frequently changing political landscapes – particularly from 1789 onwards – when the production and instruction of geography required constantly updating, so making geography a "fluctuating science".[9] A few early nineteenth-century scholars took the idea of 'pure' geography to its 'extreme' in suggesting eliminating all political content and historical descriptions from geography: geography ought to be mathematical and physical geography. The idea was to eliminate the element of human social change and to establish greater 'stability' in practising geography. This position was not supported

[7] Kant (1839 [1802]), 427. Seifert (1976) has also argued that by stressing the empirical nature of historical sciences – including geography – Kant rendered Bacon's dichotomy between '*historia'* and '*scientia*' obsolete (see Seifert (1976)).
[8] See Kuhn (1962).
[9] Ebeling in a letter to Reverend John Eliot, 25 October, 1809 (see Ebeling (1925 [1794-1817]), 392).

by all scholars, since it implied a change in the understanding of geography: from an historical to a natural science. Scholars who regarded geography as a historical science saw its main purpose in illustrating social and political changes across space and time.

The thesis has also investigated the forms of print taken by geography – books and periodicals (chapter 5). I have shown that increase in geography's textual production – both in books and in periodicals – and a concomitant popularity at the end of the eighteenth century, echoed the general growth in German-language print at the time. The growth in the volume of print reflected and drove ongoing geographical inquiries – in the German states, Europe, and overseas, and the German emphasis on education, including self-improvement. Thematically, new and political geography dominated for the great part of the eighteenth century. Books of geography written as systems devoted large numbers of pages to questions of customs, languages, institutions, and political structures. Only with the 'turn' to nature did interest in mathematical and physical geography increase. Books on historical, particularly 'ancient' or 'old' geography reflected the understanding of geography as a historical science, and an interest in the progress of civilisations and stadial theory. Books on topics such as 'biblical geography' and 'medical geography' appeared later in the eighteenth and early in the nineteenth century. Such wider understandings of geography can be interpreted as a wide use of geographical terminology and an increasingly geographical awareness, an aspect that has been interpreted as a "new global consciousness", as a reflection of increasing "efforts at thinking geographically" in other sciences by "using geography's classificatory methods – about the significance of place".[10]

Overall, the production of geography was guided by the aim for 'completeness' in print and in geography – by the utopian aim of a 'complete' geographical system, a complete description of the earth – and by the aim for collective social improvement through public learning. The aim for 'completeness' reflected the combination of a teleological goal and empirical method. This intersection resulted in an epistemological starting point which guided the production

[10] Withers and Mayhew (2011), 446; Withers (2007), 207.

of geographical print. Iteration – the repetition of the empirical method in order to achieve the aspired goal – became the goal of geographical print production. Whilst embracing empiricism as a method in geography, albeit that the focus was on textual compilation and on description aimed at completeness, the epistemological aim of 'completeness' was at once all embracing and always out of reach. As a guiding principle, I suggest, it reflected the hope to circumvent a mechanistic understanding of the world.

Given the aim of this intended 'completeness,' writing geography became increasingly a collaborative enterprise. The collaboration of scholars also served as an issue in terms of quality of geographical work in print. The increasing numbers of books and periodicals was the result of increased numbers of authors, some of whom did not have university training. The emergence of 'quality criteria' such as the indication of sources to provide credibility was intended to demarcate scholarly authority from popular writers, and to make geography more scientific, a trend that permeated the historical sciences in the late eighteenth century.[11]

The thesis has further shown that where geography was written and printed – the spatiality of geographical print production – reflected the political, urban, and religious landscapes of the Holy Roman Empire. The writing and publishing of geographical print occurred in numerous urban centres across the German states, but was most strongly present in the Protestant states. The instruction of geography – based on compendia and textbooks, the dominating genres of geographical books, was at once local and regional in character: the order, focus, and scope of geographical knowledge were each adjusted to the pupil's or student's local and social position, especially at the end of the eighteenth century. The multiplicity of textbooks intended for local or regional use, or even with a focus on a state's 'geography,' notably reflected the Empire's political fragmentation in the example of educational policies. Differences between Protestant and Catholic states were only slightly mitigated after the abolition of the Jesuit order in 1773, when especially more Bavarian authors produced textbooks.

[11] See Boehm (1978), 16, on the "'scientification' also of the humanities" during the Enlightenment; on "scientification of the historical sciences" see Hardtwig (1982), 147-191 and Hardtwig (1990), 58-91; see Albrecht (1998), 164, on the enlightenment aim of defining criteria of scientificity for the empirical sciences such as geography and history.

My investigation of geographical practice in education has shown that geography was significantly understood and used as a 'school science' (chapter 6). Numerous benefits were ascribed to geographical education and to the discourses on its improvement. Geographical learning was considered to contribute to personal and social progress by disseminating useful knowledge, enabling participation in polite social conversations, in strengthening Christian faith and developing patriotic sentiments, and to foster aesthetic appreciation and good moral behaviour. The improvement of geographical learning centred on the methodologies and methods of instruction, that is, on questions of content order, focus and scope, and the appropriate teaching techniques and means. In discussing the different underlying educational philosophies and aims advocated by Pietist, Philanthropist, and Neohumanist scholars and teachers, I have suggested that geographical instruction served as a means towards educational goals but that, overall, a widespread conservatism in geographical teaching was apparent with regard to education as a basis to social utility and personal perfectibility.

The two-fold aim of geography's presence in print and education – progress of the science and progress in society – was guided by utopian ideals: 'completeness' in print and 'perfection' of the human being and society. In these terms, geography was a means to reaching enlightenment goals, and its production and use in instruction were expressions of scholarly political moderation and the search for intellectual freedom. The ideal of embracing the utopian goals of 'completeness' and 'perfection' was partly based on the fear that a mechanistic understanding of the world together with a reason-centred education might result in violence and terror – as then seen in the French Revolution. German scholars combined, instead, empiricism with the teleological goal of 'completeness' and favoured an enlightenment dialectic of mind and heart. German scholars further feared that a reduction of life to cause and effect might eliminate the possibility of higher goals. As Bertrand Russell (1984 [1945]) stressed of German eighteenth-century philosophy:

> Until the publication of Kant's Critique of Pure Reason in 1781, it might have seemed as if the older philosophical tradition of Descartes, Spinoza, and Leibniz were being definitely overcome by the newer empirical method. The

> newer method, however, had never prevailed in German universities, and after 1792 it was held responsible for the horrors of the Revolution. Recanting revolutionaries such as Coleridge found in Kant an intellectual support for their opposition to French atheism. The Germans, in their resistance to the French, were glad to have a German philosophy to uphold them. Even the French, after the fall of Napoleon, were glad of any weapon against Jacobinism. All these factors favored Kant.[12]

This German search for 'inner' freedom – what has been coined "German inwardness" – was relevant considering the context of political freedom.[13] I have suggested that the conservatism in geographical instruction reflected an adherence to established social and political structures. Whilst obedient towards their authorities and often patronised by them, scholars sought freedom in and of the mind – through research, intellectual contemplation, and the education of others. The aim to reduce the influence of political events on the sciences was also apparent in the work of authors who promoted the 'turn to nature': by focusing on natural instead of political boundaries, these scholars could make geography "apolitical" – that is, reduce political interference.[14]

German scholars and teachers were not "radical" in their Enlightenment and geographical instruction; they did not challenge religious or political authorities to the benefit of social equality or political liberty. They were not part of what Jonathan Israel has coined the "Radical Enlightenment" – the search for democratic republicanism.[15] Instead, they commonly adhered to established political structures and given authorities, as the numerous introductory pages of geographical books and periodicals demonstrate. As civil servants who depended financially on their patrons, scholars often felt powerless or unwilling to engage in real politics. In the German states, "most authors are salaried teachers or else men who have much to hope for or much to fear. Such men will very rarely go farther than their superiors wish, even if they are not restricted through press limitations or censorship regulations, nor even if they had an unlimited freedom of the press".[16]

---

[12] Russell (1984 [1945]), 642.
[13] Blackbourn (2012), 11.
[14] Zeune (1808), preface.
[15] Carhart (2007), 289. Israel (2001).
[16] Meiners (1793-1794) in Carhart (2007), 290.

This political conservatism – or political moderation – has been seen as a particularly German Enlightenment feature. Karl Mannheim has argued that this conservatism was a response to revolutionary ideology, particularly post 1790.[17] German Enlightenment conservatism, which one author has called a "style of thought," rejected notions of rupture and revolution.[18] Yet, within that moderate position, German scholars were not 'apolitical' or 'unpolitical'. Hellmuth (1990) "refutes any suggestion that the German Enlightenment was apolitical".[19] Instead, the German republic of letters – including the geographical republic – "ideologized the principle of evolution" and sought, rather, "revolution in the human spirit [*Geist*]" – a "revolution in consciousness".[20] Vierhaus (1990) has called this 'revolution' of the mind "*a German utopia*".[21] He stressed that according to German scholars, "freedom of thought is the most important freedom, for it gives rise to that 'enlightenment' which is the origin of political reform."[22] The intelligentsia, then, cooperated with the political strata because the educational strata "perceived themselves as the real bearers of reform".[23]

## The dialectics of geography's meaning and practice

In exploring "what the eighteenth-century world took geography to be," this thesis connects with recent debates in historical geography over early modern geography.[24] Robert Mayhew's emphasis on the role of compendia and systems for the analysis and definition of geography in text is largely borne out with respect to the German states. In addition to these genres, textbooks played a role in the German context. Textbooks were a substantial element in geographical instruction. The use of textbooks for the study of geography's definition is, therefore, crucial for the case of the eighteenth-century German states. The debates concerning geography's understanding and the classification of geographical knowledge also involved

[17] Carhart (2007), 293.
[18] Carhart (2007), 294.
[19] Hellmuth (1990), 35.
[20] Ludwig Wekhrlin (1788) in Vierhaus (1990), 561; Hellmuth (1990), 34.
[21] Vierhaus (1990), 561, emphasis in original.
[22] Vierhaus (1990), 569; see also Paulsen (1902), 9, and Hammerstein (2005), 394.
[23] Bödeker (1990), 445.
[24] Withers (2006), 713.

paratextual spaces – prefaces, postscripts, and footnotes – across all German geographical forms of print – a fact which confirms the significance of materialist hermeneutics in studying the history of geography.[25] These debates, as I have shown, were further carried out in essays and prefaces of work related to geography – such as statistics, history, or education.

The particular reason for the significance of these various texts concerning the understanding (and not just the practice) of geography may be rooted, I want to suggest, in the territorial – political, urban, and intellectual – landscapes and conditions in which geography was possible. The political fragmentation and the inward focus of the territorial rulers allowed little room for financial and political support of geographical expeditions overseas. The scholarly ambition to transcend these conditions despite the limited participations in primary geographical research, strengthened the German emphasis on 'writing' geography and on working collectively on the progress of the science – in sedentary form. The resultant books and periodicals were means to connect scholars and authors spread across the German states; they enabled scholarly debates to transcend the conditions of their making.

My research has also shown that geography's textual meaning, print culture, and the relationship between text and practice may, to a degree, be understood as context-specific. It corroborates recent work by British, French, and American historical geographers who have shown that the science of geography had a stable textual definition – the description of the earth's surface – and that geography's meaning was context-specific. My research confirms that geography's meaning was related to the practices and intended purpose of the respective work of print. The German concern for geographical practices – regarding the production and communication of geographical knowledge in print and in spaces of print use – implies that geography was a "textual genre," as Mayhew has argued.[26] In addition, it was also a science that was practiced in many places and spaces, as Withers stresses.[27] Eighteenth-century German geography can be understood as a science that

[25] Mayhew (2007).
[26] Mayhew (2001).
[27] Withers (2006).

was present and negotiated in different print spaces; and print facilitated geography's practice in different spaces and places.

In the German states, geography's definition was fixed; yet, the interpretative meaning of this definition was under constant debate. The debates were manifest in the influence which the conditions of production and practice of geography could have on the meaning(s) of geography (see above). Second, geography was practised: in universities, colleges, and, in a rudimentary mode, also in higher schools. Geographical print production and tertiary education were related given that many geographical writers were either teachers or university lecturers. Several German scholars aimed at strengthening the presence of geography in German universities – geography's justification as a "university science" – and stressed the importance of producing and lecturing on the ('complete') geographical system. Canzler suggested in the preface of his *Outline of Geography* (1790): "First, it [a complete geographical system] must address the whole of geography, or describe this science in all its parts and fields. In this way, geography also becomes a university science […] Second, a system of geography for the use in lectures in institutions of higher education has to take exact account of the literature, because that makes geography a university science".[28] The question to what degree such systems were not only intended but used in university lectures remains yet to be answered. Nonetheless, my research has placed "geography on the map of Enlightenment learning".[29] In this sense, the implications of educational debates – the use and reception of the numerous geographical compendia and textbooks – remains to be fully examined. Yet, the interactions between textual meaning, print production and instruction, and the debates on geography's position in education suggest that geography – as a science – was understood in "the world of geography beyond geographers".[30]

My research has demonstrated the significance of attending to "geography's 'discursive affiliations'" when aiming to better understand the relationships between geography's meaning, discourse and practice.[31] Besides elucidating "why" "such definitions did not always work in practice," my thesis has shown why and how the

[28] Canzler (1790), preface, iii-x.
[29] Withers and Mayhew (2011), 447.
[30] Withers (2006), 725.
[31] Withers (2006), 725; Withers (2006), 724; Withers (2006), 725.

practice and purpose of geography could alter its textual meaning.[32] My thesis, thus, emphasises the importance of also investigating the role of geographical practice, conditions and motivations for geography's production and instruction. My thesis, thus, confirms the understanding of geography as a "multifaceted practice".[33]

In pointing to the spatiality of geography's production and communication, my findings add to understanding the "*geography* of geographical practice" – the "plurality in geography's past".[34] My elucidation of different spatial scales re-affirms the scholarly attention to scale when studying geography and the Enlightenment(s). Based on eighteenth-century understandings and categorisations of scale, this thesis suggests that difficulties of finding the "correct scale of analysis" might be mitigated by investigating the actors' understanding of scale first.[35] Appreciating the actors' spatial categories – and possible differences in their perception – might allow further insights concerning the role of place and space for scientific knowledge production.

My research has made use of insights from book history. Debates in book history have informed the thesis's methodology and research perspective, particularly the relationship between processes and the actors and forms, that is, questions of agency. My findings suggest that in the eighteenth-century German states, the production of geographical print – of books and periodicals – was characterised by the processes of writing, reading, translating, and rewriting. Given the epistemological aim for 'completeness' – the aim for the 'perfect' or 'complete' book – the iteration of print production became the authors' goals and guiding principle. 'Completeness' – in geography and for a particular purpose and audience – could, even in theory, only be reached in response to feedback. Authors always wrote in response to their audience or even from information gained from their audience. This is to emphasise the importance of edition history in considering the epistemologies and motivations of German geography's print culture.

In his 2007 article '"What is the history of books?" revisited', Robert Darnton stressed that his work from 1982 was meant to "picture the interrelated stages in the life cycle of one edition cycle," and had not taken into consideration later book

[32] Withers (2006), 725.
[33] Withers (2006), 725.
[34] Livingstone (1995b), 422; Withers and Mayhew (2002), 26.
[35] Livingstone (2005a), 99.

editions.[36] Darnton acknowledged that he had "failed to take into consideration the reworking of texts through new editions, translations, and the changing contexts both of reading and of literature in general".[37] My concern here is not to provide an alternative representation of the making and up-dating of books. Yet, if I had to provide such an image, it would take the shape of a 'loop', in order to represent the constant and connected processes of writing, reading, translating, and rewriting. This is also to stress the importance of space in thinking about access to the production of knowledge in books and periodicals. Writing geography in the German states depended heavily on access to geographical knowledge. German writers emphasised local differences in getting hold of such 'new' and 'old' knowledge. Political and financial conditions and personal relations played a role in this (as I showed in chapter 5). Whilst emphasis has been placed on the content of geographical production and upon its circulation, and consumption, there has been less reflection on the interplay between the conditions of access to knowledge and print production. Questions of censorship and language, of knowing more fully *how* geographical knowledge was secured – may elucidate our understanding of the geographies behind geography's print production.

## Limitations and implications for future research

The thesis has several limitations. Inevitably, it is only a partial reconstruction of the science of geography in the eighteenth-century German states. The identification of relevant primary material has been an iterative process accompanied by a number of problems. This includes the lack of comprehensive bibliographies of German geography books and periodicals, and the lack of a general comprehensive catalogue of eighteenth-century German works. The lack of comprehensive catalogues means that despite my searches the identified primary materials are unlikely to represent a 'complete' list, even though such a complete list has not been my intention. The aim was rather to get an insight into the kinds of geographical knowledge produced and their variations in content and purpose over time and space.

[36] Darnton (2007), 504.
[37] Darnton (2007), 504.

My research and the process of the thesis's production suggest that the search for geographical print might indeed be described as a constant bibliographic task. The catalogues searched for this thesis keep on being updated by the respective libraries and archives. The findings presented here thus reflect my bibliographic search during the years 2010 – 2013. The scope of literature identified – for books and periodicals shows a rich stock of material for the period *c*.1690 – *c*.1815 (see Appendix). The analysis of these forms of print and the identified manuscripts is, however, inevitably partial and subjective. Questions of translation – the use of particular terms – have been dealt with by consultation of English-language works that included translations from eighteenth-century German (see chapter 1). This thesis has centred on the production and communication history of eighteenth-century German geography. Whilst the edition history of particular works has been discussed in order to demonstrate the iterative nature of geographical print production, the edition history of all German geographical print has not been discussed in its entirety, nor have author-publisher relationships been investigated. Given the numbers of identified geographical works, such research is beyond the scope of the thesis. I have not studied globes and maps, unless they were part of print. The numbers of globes and maps were, as well, too comprehensive, and not part of my research question.

Furthermore and importantly, the reception of the books and their use have not been focus of this thesis. The scope of a PhD – the limits in time and economic resources – did not allow to concentrate on these themes. Future research needs to elucidate "how ideas walked around" – in universities, schools, private homes, and learned societies, or in "sites of speech".[38] The variations in meaning have been addressed in debates about geographical print and carried in print spaces. Further research on the mobility of meaning – by particular figures and in particular sites – could add to the research of this thesis and provide insights on the relationship between the authors' intentions and the actual outcome.[39] Finally, the focus has been on geography rather than on geographers: my research has extended beyond a

[38] Livingstone (2005a), 96.
[39] For recent work on the reception of geographical knowledge, see Rupke (2000, 2005); Livingstone (2005a); Keighren (2010).

scrutiny of particular figures, such as Büsching, Kant or von Humboldt, not least since these figures have been studied.[40] The aim was rather to map the production of geographical print and the purposes to which it was put, rather than produce a prosopography of German geographers.

It may also be possible to extend, more than I have here, the study of the connections between philosophical thought and geography's content and history. Mendieta (2011) has shown that Kant's geographical work was "animated, oriented, guided, and informed by a philosophical imagery".[41] Malpas and Thiel (2011) and O'Neill (2011) have, in turn, elaborated on the role of geographical understanding in informing philosophical thought and imagery. Elden and Mendieta's *Reading Kant's Geography*, thus, indicates the relevance of "border traffic" between historical geographers and philosophers: Kant, as this thesis suggests, was not an exception.[42]

The connections between philosophical, religious, and geographical thought have also been a theme of this thesis, adding to what others have shown. Mayhew (2005b) and Heffernan (2005) have pointed to the role and implications of Petrus Ramus's method in countering Catholic orthodoxy and Aristotelian dogmatism in seventeenth-century England and in eighteenth-century French education alike. Margarita Bowen (1981) has elaborated on the intersection of geography and empiricism, and Tang (2008) has dwelled on what he calls the "philosophical origin of modern geography".[43]

This thesis has highlighted the possibilities of deepening the connections between the philosophy of the Enlightenment and the philosophy of geography. With reference to the scholarly aim for 'completeness' and human 'perfectibility' and the geographical emphasis on methodology, the findings of this thesis suggest that philosophical underpinnings played a role in Enlightenment geographical thought and practice in the German context. Deeper engagement with these streams of thought might offer further insights into how the philosophical principles of the

[40] On Anton Friedrich Büsching see Kühn (1939), Plewe (1986), Bowen (1981), Hoffmann (2000), Withers (2007); on Immanuel Kant see May (1970), Richards (1974), Bowen (1981), Stark (2001), Elden and Mendita (2011); on Alexander von Humboldt see Bowen (1981), Withers (2007), Rupke (2008), Walls (2009).
[41] Mendieta (2011), 263.
[42] Mayhew (2012), 340.
[43] Tang (2008), 98-124.

Enlightenment and of geography mutually informed each other. The thesis has also shown the connections between religious landscapes and geographical print production in the eighteenth-century German states. Further research on the interplay between religion and geography might add to our understanding of their roles in German Enlightenment thought and practice.

## Conclusion: 'Geography' in 'Enlightenment' 'Germany'

'Germany' – the territorial entity of scrutiny in this thesis – has been described as a "messy system that governed the internal affairs of the Holy Roman Empire, a mess that was compounded by a millennium of evolving customary practices, edicts, and jurisprudence."[44] The borders of the various states changed remarkably during the 'long' eighteenth century. The autonomous German states varied in size from a city to Prussia or the Austrian state. Forms of government varied from near absolutism (Prussia) to the governance of a city council (Hamburg). As Carhart (2007) thus stresses, "But in such a national or regional scheme, how would one classify Germany? Among the Protestants, alone one would have to identify at least three separate Enlightenments: a Pietist and eclectic Enlightenment, centered at the University of Halle after its founding in 1690 and later at Berlin; an orthodox Lutheran Enlightenment at Dresden and Leipzig from which the Halle Pietists had seceded; and a post-Pietist Enlightenment at Göttingen which defined itself in opposition to both Saxony and the Brandenburg of Frederick the Great."[45] My research has confirmed this regional and local diversity with respect to Enlightenment geographical thought and print production. Differences in textual meaning and enlightenment education across the German states have been indicated. My research has also emphasised the religious fragmentation of the Holy Roman Empire, that is, an overall 'north – south' division between dominantly Protestant and dominantly Catholic states. My findings, thus, echo what some have called the

[44] Carhart (2007), 53.
[45] Carhart (2007), 287.

distinction between the "Protestant Enlightenment" and the "Enlightenment in Catholic Germany".[46]

Yet, my research has also shown that geographical debates and overall aims – progress (enlightenment) in geography and of society – transcended local and state boundaries. These conversations and debates were imagined as 'national' in scope; they were based on an imagined German scholarly community manifest in a geographical 'republic of letters'. This included both authors in Protestant states and – after 1773 – authors in Catholic states. These findings confirm the "entanglement of regional and territorial discourses" in the eighteenth-century German states.[47]

This thesis has suggested that what 'Enlightenment' meant with regard to geography, varied in and across the German states. Enlightenment thought and practice varied by time, author, place, and region, and was manifest in different geographical forms and practices. "The word Enlightenment is being used by everybody now, yet, we have not found a defining concept which encompasses the entire movement, and which is at the same time appropriately precise," Karl Friedrich Bahrdt argued in 1789.[48] So too for geography. Despite these differences, key characteristics of Enlightenment and of geography in the German states have been pointed out. Particularly the idea of Enlightenment as a "learning process," for scholars and the public, has been confirmed, by demonstrating geography's place in Enlightenment education.[49] "Enlightenment is never an end but always a means. If it becomes the former it is a sign that it has ceased," Herder stressed in 1769.[50] The 'end,' for Herder, was freedom and humanity.[51] My research has also shown that the improvement of the members of society – *eudaimonia* – was the ultimate aim of Enlightenment and of geography.

Further stressing "geography's relationship with Enlightenment," my thesis has pointed to the Enlightenment emphasis on progress – in science and of society –

[46] See Whaley (1981) on the "Protestant Enlightenment in Germany" and Blanning (1981) on "The Enlightenment in Catholic Germany".
[47] Fischer *et al*. (1999), 17.
[48] Karl Friedrich Bahrdt in Umbach (2000), 25-26.
[49] Vierhaus (1987), 84-95.
[50] Herder in Reill (2008), 284, fn. 14.
[51] Reill (2008), 287.

as manifest in the forms taken by geographical print.[52] Concerning the spatiality of Enlightenment geography, my research has provided evidence that German geography was present outside of Göttingen which has been stressed by others as the main centre of eighteenth-century geographical scholarship.[53] Geographical print was produced and taught in numerous places across the German states. Centres of geographical print production were not only the cities and larger towns, such as Berlin and Vienna, or the centre of book trade, Leipzig, but also numerous provincial places, which some have called "peripheries of the Enlightenment".[54]

This is to propose an understanding of 'Enlightenment,' 'geography,' and 'Germany' as 'fluid' and 'open' categories whose interrogation as interpretative notions requires attention to their mutual interrelations and to the forms taken in expressing these ideas. Further research may shed light not only on the geographies of Enlightenment geography, but also upon the connections between intellectual history, historical geography, the history of the book, and the history of science, which this thesis has elucidated.

[52] Livingstone and Withers (1999b), 21.
[53] Kühn (1939).
[54] Butterwick *et al*. (2008).

# Bibliography

## Primary unpublished sources

Ebeling, C. D. 1790-1818. *Ebeling papers*, *c.*1790 – *c.*1818, a collection of notes in 26 volumes, held in Harvard Houghton Library.

Ebeling, C. D. 1794-1818. Letters to Ebeling, C. D. Letters to William Bentley, John Elliot, Jeremy Belknap, and Ezra Stiles *c.*1794 – *c.*1818, held at Harvard Houghton Library.

Ebeling, C. D. 1794-1811. Letters to Jedidiah Morse, *c.*1794 – *c.*1811, held at Yale University Library.

Ebeling, C. D. 1795-1799. Letters to Noah Webster, *c.*1795 – *c.*1799, Photostats held at Harvard Houghton Library.

## Primary published sources

Adelung, C. J. 1774-1786. *Grammatisch-kritisches Wörterbuch der hochdeutschen Mundart. Mit beständiger Vergleichung der übrigen Mundarten, besonders aber der oberdeutschen*. Leipzig: Bernhard Christoph Breitkopf und Sohn.

Adelung, C. J. 1778-1781. *Kurzer Begriff der menschlichen Fertigkeiten und Kenntnisse sofern sie auf Erwerbung des Unterhalts, auf Vergnügen, auf Wissenschaft, und auf Regierung der Gesellschaft abzielen: In vier Teilen. Für Realschulen und das bürgerliche Leben*. 4 volumes. Leipzig: Christian Gottlieb Hertel.

Adelung, C. J. 1781. *Kurzer Begriff der menschlichen Fertigkeiten und Kenntnisse sofern sie auf Erwerbung des Unterhalts, auf Vergnügen, auf Wissenschaft, und auf Regierung der Gesellschaft abzielen: In vier Teilen. Für Realschulen und das bürgerliche Leben*. 4th volume. Leipzig: Christian Gottlieb Hertel.

Adelung, C. J. 1789. *Kurzer Begriff der menschlichen Fertigkeiten und Kenntnisse sofern sie auf Erwerbung des Unterhalts, auf Vergnügen, auf Wissenschaft, und auf Regierung der Gesellschaft abzielen: In vier Teilen. Für Realschulen und das bürgerliche Leben*. Fourth volume, second edition. Leipzig: Christian Gottlieb Hertel.

Andre, C. C. 1790. *Über den Unterricht in der Geographie*. *An alle Besitzer der Raffschen Schriften, besonder Schulmänner und Kenner zur Rechtfertigung meines Planes bei der Umarbeitung derselben*. Göttingen: Johann Christian Dieterich.

Anonymous. 1713. *Kindergeographie. Das ist eine kurze und sorgfältige Anleitung, wie man auch kleinen Kindern die große Welt, und insonderheit die Erdkugel bekannt machen und beschreiben soll, nebst einem Anhange von allerhand natürlichen, politischen, häußlichen und sittlichen Dingen, und einer kurzen Zugabe von dem Catechismo*. Helmstadt: Heinrich Hesse.

Anonymous. 1770. *Historische Erdbeschreibung zum Gebrauche der Jugend*. München.

Anonymous. 1776. *Historische Erdbeschreibung zum Gebrauche der Jugend*. München.

Anonymous. 1780. Review: Hähn's *Ausführliche Abhandlung der Litteral-Methode (1777)*. *Allgemeine Deutsche Bibliothek (ADB)*, 2137-2138.

Anonymous. 1782. *Prüfung aus der Geographie für die Schüler in der zweyten Klasse zu Salzburg* Salzburg: Hof- und akademische Waisenhausbuchdruckerei.

Anonymous. 1783. *Historische Erdbeschreibung zum Gebrauche der Jugend in den Churfürstlichen Gymnasien in Bayern*. München: Fritz.

Anonymous. 1788. Review. Französisch geographisches Lesebuch... von Schulze, J.M.F. Berlin bei August Mylius, 1788: Rezension. *Braunschweigisches Journal*, 2.Bd. (1788): 372 – 374.
Available at: http://www.ub.uni-bielefeld.de/cgi-bin/navtif.cgi?pfad=/diglib/aufkl/brajou/038882&seite=00000372.TIF&scale=5 [Last accessed on 21 January 2013].

Anonymous. 1791. Review: Seehase's *Ueber geographischen Jugendunterricht ueberhaupt,... Allgemeine Deutsche Bibliothek* (ADB), 210.

Anonymous. 1791. Review: Gaspari's essay 'Ueber den methodischen Unterricht in der Geographie. *Allgemeine Literaturzeitung*, 16. Dezember 1791 (331): 529-531.

Anonymous. 1793. Review: von *Magazin von merkwürdigen neuen Reisebeschreibungen*. *Allgemeine Literatur-Zeitung*, 1 (5) (5. Januar 1793), 33-37.

Anonymous. 1796. Review of several "Kleine Schriften" [Short writings] including Dassel (1794). *Allgemeine Literatur-Zeitung*, 22. Juli 1796 (227): 199-200.

Anonymous. 1797. Review of several of Gaspari's geographical works. *Allgemeine Literaturzeitung*, 6 January 1797 (6): 41-44.

Anonymous. 1802. ‘Sammelrezension von einer Schrift zum Geographieunterricht, einem Schulatlas und den dazugehörigen Geographielehrbüchern.’ *Allgemeine Literaturzeitung*, August (245): 485-486.

Anonymous [Westenrieder, L. v.]. 1808. *Nützliche Kenntnisse für die Jugend. Ein Lehr- und Lesebuch*. München: Joseph Lindauer.

Anonymous. 1809. Review of Zeune’s 1808 *Gea.Versuch einer wissenschaftlichen Erdbeschreibung*. *Allgemeine Literaturzeitung*, 6. Jahrgang, Band 4 (238): 81-87.

Anonymous. 1813. ‘[Sammelrezension zweier geographischer Werke von H. G. Hommeyer] Hommeyer’s *Einleitung in die Wissenschaft der reinen Geographie* und *Reine Geographie von Europa* [...].’ *Allgemeine Literaturzeitung*, 3. Band (265): 443-448.

Anonymous. 1814. ‘Bücher-Recensionen. 3. Bucher’s [...] *Betrachtungen über die Geographie und über ihr Verhältnis zur Geschichte und Statistitk* [...] 1812.’ *Allgemeine Geographische Ephemeriden*, 44. Band (2): 221-230.

Archenholtz, J. W. 1782-1786. *Litteratur und Völkerkunde: ein periodisches Werk*. Dessau: Verlags-Kasse für Gelehrte und Künstler; Leipzig: Buchhandlung der Gelehrten.

Bardth, K. F. 1777. *Philanthropischer Erziehungsplan oder, Vollständige Nachricht von dem ersten wirklichen Philanthropin zu* Marschlins. Frankenthal: Gegel.

Basedow, J. B. 1785. *Das Basedowische Elementarwerk: Ein Vorrath der besten Erkenntnisse zum Lernen, Lehren, Wiederholen und Nachdenken*. Dritter Band, Siebentes Buch für Lehrende und Lernende. Die Elemente der Geschichtskunde: “Die erste Geographie”. Second edition. Leipzig: Crusius.

Baumann, L. A. 1768. *Kurzer Entwurf der Geographie für Anfänger*. Brandenburg [u.a.]: Gebrüder Halle.

Baumann, L. A. 1773. *Kurzer Entwurf der Geographie für Anfänger*. Neue Auflage [new edition]. Homburg vor der Höhe: G.C. Göllner.

Baumann, L. A. 1790. *Kurzer Entwurf der Geographie für Anfänger*. Brandenburg [u.a.]. Dritte Auflage [third edition]. Brandenburg: Halle.

Blech, A. F. 1810. *Lehrbuch der Erdbeschreibung für Schulen, nach minder veränderlichen Grundsätzen*. Königsberg.

Braun, H. 1773. *Wie sind die Pläzze der PP. Jesuiten in den Schulen zu ersezzen, wenn ihr Institut aufgehoben ist? Eine patriotische Frage*. Frankfurt and Leipzig.

Braun, H. 1774. *Gedanken über die Erziehung und den öffentlichen Unterricht in Trivial-, Real- und lateinschen Schulen nach den katholischen Schulverfassungen Oberdeutschlands*. Ulm: Johann Konrad Wohler.

Braun, H. 1775. *Katechismus für Kinder*. München: Johann Nepomuk Fritz.

Braun, H. 1777. *Entwurf der Einrichtung des churfürstlichakademischen Gymnasiums zu Ingolstadt*. München: Joseph Alois von Crätz.

Braun, H. 1783. *Pragmatische Geschichte der Schulreformation in Baiern aus ächten Quellen*. München.

Buffon, G. L. L. comte de. 1780-1785. *Natural History, general and particular, by the Count de Buffon*. Edinburgh: Printed for William Creech.

Büsch, J. G. 1775a. *Encyclopädie der historischen, philosophischen und methodischen Wissenschaften grossentheils nach dem Grundrisse des sel. Reimarius ausg*. Hamburg: Heroldische Buchhandlung.

Büsch, J. G. 1775b. *Encyclopädie der mathematischen Wissenschaften.* Hamburg: Heroldische Buchhandlung.

Büsch, J. G. 1795b. *Encyclopädie der mathematischen Wissenschaften*. Second Edition. Hamburg: Benjamin Gottlob Hoffmann.

Büsching, A. F. 1752. *Kurzgefasste Staatsbeschreibung der Herzogthümer Holstein und Schleswig. Mit einer Nachricht von seiner neuen allgemeinen zuverläßigern Erdbeschreibung*. Hamburg: Bohn.

Büsching, A. F. 1754-1792. *Neue Erdbeschreibung*. 8 editions. Hamburg: Bohn.

Büsching, A. F. 1762. *A New System of Geography in which is given, a general account of the situation and limits, the manners, history, and constitution of the several kingdoms and states in the world …Carefully translated from the last edition of the German original. ... Illustrated with thirty-six maps*, ... translated by Patrick Murdoch. In six volumes. London: printed for A. Millar in the Strand.

Büsching, A. F. 1766-1786. *A New System of Geography containing a particular and circumstantial account of all the countries, kingdoms and states of Europe, Asia, Africa and America, their situation ... with the birds, beasts, ..., found in different regions, embellished with a new and accurate set of maps, by the best geographers, and great variety of copper-plates, containing perspective views of the principal cities, structures, ruins, etc*, ... translated by Daniel Fenning and Joseph Collyer. In six volumes. London: Crowder.

Büsching, A. F. Büsching, A. F. 1758. *Vorbereitung zur gründlichen und nützlichen Kenntniß der geographischen Beschaffenheit und Staatsverfassung der europäischen*

*Reiche und Republiken, welche zugleich ein allgemeiner Abriß von Europa ist*. Hamburg: Bohn.

Büsching, A. F. 1759. *Vorbereitung zur gründlichen und nützlichen Kenntniß der geographischen Beschaffenheit und Staatsverfassung der europäischen Reiche und Republiken, welche zugleich ein allgemeiner Abriß von Europa ist*. Zweite Auflage [Second edition]. Hamburg: Bohn.

Büsching, A. F. 1773. *Unterricht für Informatoren und Hofmeister*. Hamburg: Buchenröder und Ritter.

Büsching, A. F. 1775. *Unterricht für Informatoren und Hofmeister*. Zweite, verbesserte Ausgabe [second improved edition]. Hamburg: Buchenröder und Ritter.

Büsching, A. F. 1784. *Vorbereitung zur gründlichen und nützlichen Kenntniß der geographischen Beschaffenheit und Staatsverfassung der europäischen Reiche und Republiken, welche zugleich ein allgemeiner Abriß von Europa ist*. Sechste rechtmäßige und vermehrte Auflage [Sixth legal and extended edition]. Hamburg: Bohn.

Büsching, A. F. 1789. *Eigene Lebensgeschichte in vier Stücken*. Halle: Curts.

Cannabich, J. G. Fr. 1838 [1835]. *Hülfsbuch beim Unterrichte in der Geographie für Lehrer, die sich meiner oder anderer Lehrbücher bedienen. Zugleich zum Nachlesen für Freunde der Erd- und Länderkunde bestimmt, die sich über das Merkwürdigste der selben belehren wollen*. Eisleben: Verlag von Georg Reichardt.

Canzler, F. G. 1790-1791. *Abriß der Erdkunde nach ihrem ganzen Umfang zum Gebrauch bey Vorlesungen*. Göttingen: Vandenhoek und Ruprecht.

Canzler, F. G. (ed). 1792-95. *Allgemeines Literaturarchiv für Geschichte, Geographie, Statistik, Handlung, deren Hülfswissenschaften und Hülfsmittel, Landcharten etc.: für das Jahr 1791*. Leipzig: Heinsius und Sohn (and son).

Dassel, C. K. J. 1790. *Vorschlag zu einer neuen Methode, sowohl des schriftlichen als muendlichen geographischen Unterrichts, um, neben der bloßen Anfüllung des Gedächtnisses auch den Verstand aufzuklären und das Herz zu bilden*. Halle: Buchhandlung des Waisenhauses.

Dassel, C. K. J. 1791. *Geographische Lehrbuch zum Nutzen und Vergnügen für Kinder und Kinderlehrer, in geographischer Ordnung, um nebst der Anfüllung des Gedächtnisses, auch den Verstand aufzuklären und das Herz zu bilden*. Halle: Buchhandlung des Waisenhauses.

Dassel, C. K. J. 1794. *Ueber den Nutzen und die Methode des geographischen Unterrichts für Frauenzimmer, nebst dem Plan eines eigenen geographischen Lehrbuchs fürs weibliche Geschlecht*. Hannover: Gebrüder Hahn.

Desing, A. 1732. *Kürzeste Universal-Historie nach der Geographia auff der Land-Karte ... zu erlehrnen.* Kempten: Mayr.

Desing, A. 1736. *Kürtziste Universal-Historie nach der Geographia Auf der Land-Karte Zu erlernen Von der studirenden Jugend des Bischöfflichen Lycei zu Freysing*. Augspurg; Stad am Hof, bey Regenspurg: Strötter, Gastel und Ilgers.

Desing, A. 1750. *Kürziste Universal-Historie nach der Geographia*. München; Stadt am Hof; Regenspurg: Gastl.

Desing, A. 1767. *Kürtzeste Universal-Historie nach der Geographia auf der Land-Karte zu erlernen von der studierenden Jugend des bischöflichen Lycei zu Freysing*. München; Stadt am Hof: Gastl.

Desing, A. 1781. *Kurze Anleitung die Universalhistorie nach der Geographie auf der Landkarte zu erlernen, für die studierende Jugend herausgegeben*. Augsburg: Riegers Erben.

Desing, A.1803. *Kurze Anleitung die Universalhistorie nach der Geographie auf der Landkarte zu erlernen, für die studierende Jugend herausgegeben. Mit einer Universalkarte*. Augsburg: Rieger.

Dufréne, M. (Verfasset Von einem Priester erwehnter Gesellschaft). 1729. *Rudimenta Geographica. Opusculum Quintum. Geographischer Anfang, Oder Kurtze und leichte Weise, Die Catholische Jugend in der Geographie zu unterrichte, Für die Schulen der Gesellschaft Jesu in der Ober-Teutschen Provinz. Verfasset von einem Priester erwehnter Gesellschaft. Fünftes Wercklein. Cum Gratia & Privilegio Speciali Sac. Caes. & Cath. Majestatis, Ac Superium Permissu*. Augsburg: Mathias Wolff.

Dufréne, M. (Verfasset Von einem Priester erwehnter Gesellschaft). 1740. *Rudimenta Geographica. Opusculum Quintum. Geographischer Anfang, Oder Kurtze und leichte Weise, die Catholische Jugend in der Historie zu unterrichten, Für die Schulen der Gesellschaft Jesu in der Ober-Teutschen Provinz. Verfasset von einem Priester erwehnter Gesellschaft. Fünftes Wercklein, Nebst einem Anhang von der Wapen-Kunst*. Augspurg: Matthias Wolff und Sohn.

Ebeling, C. D. (ed). 1777-1778. *Amerikanische Bibliothek*. Leipzig: Weygand.

Ebeling, C. D. 1925 [1794-1817]. In Lane, W. C. (ed). 'The Letters of Christoph Daniel Ebeling to Rev. Dr. William Bentley of Salem, Mass., and to other American Correspondents.' *Proceedings of the American Antiquarian Society*, NS 35 (1925): 272-459.

Ebeling, C. D. 1891. ‘Letters of Ebeling to Jeremy Belknap.’ In ‘The Belknap Papers: Part III.’ *Massachusetts Historical Society*, Collections, 6th Series, IV (1891): 579-584, 594-601, 607-609, 620-627.

Eber, C. L. 1756. *Geographisches Reise- Post- und Zeitungs-Lexicon von Teutschland, oder gesammlete Nachrichten von denen in Teutschland liegenden Städten, Marktflecken, Flecken, Schlössern, Klöstern, Dörfern u. s. w. In alphabetischer Ordnung samt deren Lage, Herrschaft, Gerichtsbarkeit, Merkwürdigkeiten, Distanzen, Poststrasen, Postberichten u. d. m. zum allgemeinen Nutzen derer Postämter, Reisenden, Kauf- und Handelsleute, und überhaupt aller Correspondenten herausgegeben*. Heydenreich, Gottlob Heinrich [Zensor]; Haan, Matt. Wilhelm [Zensor]. Jena: Schulze.

Ehrmann, T. F. 1803. ‘Ueber die geographische Kritik. Ein Versuch.’ *Allgemeine Geographische Ephemeriden*, 11: 414-438.

Ehrmann, T. F. 1809. ‘Ueber die geographische Literatur, ihren gegenwärtigen Umfang und ihre noch auszufüllenden Lücken. Ein fragementarischer Versuch.’ *Allgemeine Geographische Ephemeriden*, 28: 255-276.

Ehrmann, T. F. (ed). 1783. *Magazin der Erd- und Völkerkunde*. Giessen: Krieger.
Einige Gelehrte. (eds). 1785-86. *Historisch und statistisches Magazin vornehmlich von Oberteutschland*. Kempten: Verlag. der Typopgraphischen Gesellschaft.
Engel, M. E. 1791. *Neues Handbuch der Geographie mit den nöthigsten statistischen und historischen Erläuterungen für die Jugend und Freunde der Erdkunde*. Leipzig: Schneidern.

Eisenmann, J. A. 1811. *Neueste Geographie des Königreichs Bayern.* München: Lindauer.

Ersch, J. S. 1793-1807. *Allgemeines Repertorium der Literatur für die Jahre 1785 bis 1790.* 3 volumes. Weimar: im Verlage des Landes-Industrie-Comptoirs.

Ersch, J. S. 1790-1792. *Repertorium über die allgemeinern deutschen Journale und andere periodische Sammlungen für Erdbeschreibung, Geschichte und die damit verbundenen Wissenschaften.* Lemgo: im Verlage der Meyerschen Buchhandlung.

Ersch, J. S., Gruber, J. G., Meier, M. H. E. *Allgemeine Encyclopädie der Wissenschaften und Künste*. Vol. 1, 13 (Briänsk-Bukuresd). Leipzig: Gleditsch.

Eschenburg, J. J. 1792. *Lehrbuch der Wissenschaftskunde. Ein Grundriß encyklopädischer Vorlesungen*. Berlin and Stettin: Friedrich Nicolai.

Eschenburg, J. J. 1800. *Lehrbuch der Wissenschaftskunde. Ein Grundriß encyklopädischer Vorlesungen*. Second edition. Berlin and Stettin: Friedrich Nicolai.

Eschenburg, J. J. 1805. *Entwurf einer Theorie und Literatur der schönen Wissenschaften: Zur Grundlage bey Vorlesungen*. Frankfurt und Leipzig.

Eschenburg, J. J. 1809. *Lehrbuch der Wissenschaftskunde*. Third edition. Berlin and Stettin: Friedrich Nicolai.

Fabri, J. E. 1780. *Neues Elementarwerk für die niedern Klassen laterinischer Schulen und Gymnasien. Nach einem zusammenhängenden und auf die Lesung klassischer Autoren in den obern Klassen, wie auch auf die übrigen Vorkenntnisse künftiger Studirenden gründlich vorbereitenden Plane. Neunter Theil. Geographisches Lehrbuch für den zweyten Cursus.* Mit Churf. Sächs. gnädiger Freyheit. Halle: Joahnn Jacob Gebauer.

Fabri, J. E. 1786. *Kurzer Abris der Geographie*. Second edition. Halle: Verlag des Waisenhauses.

Fabri, J. E. 1790. *Neues Elementarwerk für die niedern Klassen lateinischer Schulen und Gymnasien. Nach einem zusammenhängenden und auf die Lesung klassischer Autoren in den obern Klassen, wie auch auf die übrigen Vorkenntnisse künftiger Studirenden gründlich vorbereitenden Plane. Neunter Theil. Geographisches Lehrbuch für den zweyten Cursus.* Neue umgearbeitete Auflage (second edition). Mit Churf. Sächs. gnädiger Freyheit. Halle: Joahnn Jacob Gebauer.

Fabri, J. E. 1803. *Neues Elementarwerk für die niedern Klassen laterinischer Schulen und Gymnasien. Nach einem zusammenhängenden und auf die Lesung klassischer Autoren in den obern Klassen, wie auch auf die übrigen Vorkenntnisse künftiger Studirenden gründlich vorbereitenden Plane. Neunter Theil. Geographisches Lehrbuch für den zweyten Cursus.* Dritte Auflage (third edition). Mit Churf. Sächs. gnädiger Freyheit. Halle: Joahnn Jacob Gebauer.

Fabri, J. E. 1793. *Handbuch der neuesten Geographie für Akademien und Gymnasien*. Nebst einer Einleitung in die mathematische und physikalischen Erdbeschreibung und einem vollständigen Register. Vierter verbesserte Auflage (fourth edition). Halle: Hemmerde & Schwetschke.

Flurl, M. v. and Pallhausen, V. P. v. 1787. *Geschichte und Erdbeschreibung von Pfalzbaiern*. München: Joseph Lentner.

Flurl, M. v. and Pallhausen, V. P. v. 1797. *Geschichte und Erdbeschreibung von Pfalzbaiern für Lehrer und Schüler*. Zweyte, neubearbeitete und vermehrte Auflage. [Second, revised and extended edition]. München: Joseph Lentner.

Franz, F. C. 1788. *Lehrbuch der Länder- und Völkerkunde in zween Theilen. Erster Theil. Europa*. Stuttgart: Erhardische Buchhandlung.

Franz, F. C. 1790. *Lehrbuch der Länder- und Völkerkunde. Zweeter Theil. Asien, Afrika, Amerika und die neu entdeckten Länder, nebst einem Register über beede Teile*. Stuttgart: Erhard und Löflund.

Freyherr von F. 1767. 'Schreiben des Freyherrn von F** an den Herrn Grafen von B*** die jetzige Einrichtung geographischer Bücher betreffend.' *Allgemeine historische Bibliothek*, 1767, Bd. 2, 40-43.

Galletti, J. G. A. 1790. *Lehrbuch der Geographie oder Erdkunde*. Gotha: Ettinger.

Gaspari, A. C. 1789. *Ueber den methodischen Unterricht in der Geographie und die zweckmäßigen Hülfsmittel dazu* (verweis auf dieses Werk in Fabris Neuem Elementarwerk für den zweiten Cyclus). Dritte vermehrte Ausgabe (third edition). Weimar: Verlag des Industrie-Comptoirs.

Gaspari, A. C. 1791. *Ueber den methodischen Unterricht in der Geographie und die zweckmäßigen Hülfsmittel dazu*. Dritte vermehrte Ausgabe (third edition). Weimar: Verlag des Industrie-Comptoirs.

Gaspari, A. C. 1792-1793. *Lehrbuch der Erdbeschreibung zur Erläuterung des neuen methodischen Schul-Atlasses*. Weimar: Verlage des Industrie-Comptoirs.

Gaspari, A. C. 1796a. *Ueber den methodischen Unterricht in der Geographie und die zweckmäßigen Hülfsmittel dazu* (Verweis auf dieses Werk in Fabris Neuem Elementarwerk für den zweiten Cyclus). Dritte vermehrte Ausgabe (third edition). Weimar: Verlag des Industrie-Comptoirs.

Gaspari, A. C. 1795-1796b. *Lehrbuch der Erdbeschreibung zur Erläuterung des neuen methodischen Schul-Atlasses*. Second edition. Weimar: Verlage des Industrie-Comptoirs.

Gaspari, A. C. 1797. *Vollständiges Handbuch der neuesten Erdbeschreibung*. Erster Band. Verlag des Industrie-Comtoirs.

Gaspari, A. C. 1800. *Ueber den methodischen Unterricht in der Geographie und die zweckmäßigen Hülfsmittel dazu*. Dritte vermehrte Ausgabe (third edition). Weimar: Verlag des Industrie-Comptoirs.

Gaspari, A. C. 1819. *Ueber den methodischen Unterricht in der Geographie und die zweckmäßigen Hülfsmittel dazu*. Dritte vermehrte Ausgabe (third edition). Weimar: Verlag des Industrie-Comptoirs.

Gatterer, J. C. 1761. *Handbuch der Universalgeschichte nach ihrem gesamten Umfange von Erschaffung der Welt bis zum Ursprunge der meisten heutigen Reiche und Staaten*. Göttingen: Vandenhoeck.

Gatterer, J. C. 1766. *Handbuch der Universalgeschichte nach ihrem gesamten Umfange von Erschaffung der Welt bis zum Ursprunge der meisten heutigen Reiche und Staaten*. Second edition. Göttingen: Vandenhoeck.

Gatterer, J. C. 1768. *Fortsetzung der Algemeinen Welthistorie durch eine Geselschaft von Gelehrten in Teutschland und Engeland ausgefertiget. Zwey und dreyßigster Theil*. *Mit einer Vorrede begleitet von Johann Christoph Gatterer*. Halle: Johann Justinus Gebauer.

Gatterer, J. C. 1770. *Fortsetzung der Algemeinen Welthistorie durch eine Geselschaft von Gelehrten in Teutschland und Engeland ausgefertiget. Drey und dreyßigster Theil*. *Mit einer Vorrede begleitet von Johann Christoph Gatterer*. Halle: Johann Justinus Gebauer.

Gatterer, J. C. 1773. *Ideal einer allgemeinen Weltstatistik; in der öffentlichen Versammlung des Konigl. histor. Instituts den 2. Oct. 1773 vorgelesen*. Göttingen: Im Vandenhökischen Verlag.

Gatterer, J. C. 1775 [1778]. *Abriss der Geographie*. Göttingen: Dieterich.

Gedicke [Gedike], F. 1781. *Nachricht von der Einrichtung des Berlinisch-Kölnischen. Gymnasiums*. Berlin: August Mylius.

Gedicke [Gedike], F. 1788a. *Nachricht von der Einrichtung des Berlinisch-Kölnischen. Gymnasiums*. Berlin: Johann Friedrich Unger.

Gedicke [Gedike], F. 1788b. *Neue Nachricht von der Einrichtung des Friedrichwerderschen Gymnasium*. Berlin: Unger.

Gedicke [Gedike], F. 1791. *Einige Gedanken über die Ordnung und Folge der Gegenstände des jugendlichen Unterrichts*. Berlin: Johann Friedrich Unger.

Gedicke [Gedike], F. 1796. *Nachricht von der Einrichtung des Berlinisch-Kölnischen. Gymnasiums*. Berlin: Johann Friedrich Unger.

Gedicke [Gedike], F. 1798. 'Gedanken über die Methode beim geographischen Unterricht. (Einladungsschrift zur Einführung des Verfassers als Direktor des Friedrichswerderschen Gymnasiums den 29ten September 1779.' In Unger, J. F. (ed). *Gesammlete Schulschriften von Friedrich Gedike. Königl. Preußischem Oberkonsistorial- und Oberschulrath, und Direktor des vereinigten Friedrichswerderschen und Friedrichsstädtischen Gymnasiums*. Berlin: Johann Friedrich Unger.

Gerlach, F. W. 1772. *Kleine Erdbeschreibung: darin die Erklärung der Erdkugel, ihrer Zirkel und derer Nutzens, geometrische Ausmessungen der Erde, der Grund richtige Landkarten zu machen; der vornehmsten Oerter Lage, oder Grade ihrer Länge und Breite, und andere Eigenschaften; wie auch der Länder Lage, Klima,*

*größte Tageslänge, Größe, Abtheilung, Fruchtbarkeit, Seltenheit, Religion, Handlung, Regierung, Macht, [et]c. enthalten sind; Zum Gebrauche der k.k. Ingenieurakademie*. Wien: v. Ghelen.

Glandorff, E. G. 1784. *Einige Beyträge zur Geographischen Methode, wie die Kenntniß der Lage der Orte oder die Gränzkunde, im Zirkel der andern Lectionen, auf Schulen beygebracht werden kan. Nebst einer kleinen Weltcharte die blos Aussenlinien der Länder, Hauptgebirge und Hauptflüsse, aber keine Nahmen, enthält; und auch besonders zu haben ist*. Anspach: Haueisen.

Graf von B. 1767. 'Antwort des Herrn Grafen von B*** auf das vorhergehende Schreiben des Freyherrn von F*.' *Allgemeine historische Bibliothek*, 1767, Band 2, 43-46.

Guthrie, W. 1795. *A new system of modern geography, or, A geographical, historical, and commercial grammar, and present state of the several kingdoms of the world containing I. the figures, motions, and distances of the planets ... II. a general view of the Earth ... III. the grand divisions of the globe into land and water, continents and islands ... VIII. the history and origin of nations, their forms of government, religion, laws, revenues, taxes, naval and military strength*. London: Printed for C. Dilly.

Hager, J. G. 1751. *Ausführliche Geographie. Erster Theil, von der Weltkugel und Europa überhaupt, von Portugall, Spanien, Frankreich, Großbritannien, Niederland, Schweitz und Italien insonderheit. Neue und durchaus verbesserte Auflage. Mit königl. Pohln. Und Churfl. Sächß. allergnädigster Freyheit*. Chemnitz: Johann Christoph und Johann David Stößel.

Hager, J. G. 1755a. *Kleine Geographie vor die Anfänger*. Chemnitz: Johann Christoph and Johann David Stößel.

Hager, J. G. 1755b. *Ausführliche Geographie, Theil 1*. Chemnitz: Johann Christoph and Johann David Stößel.

Hager, J. G. (ed). 1764-78. *Geographischer Büchersaal, zum Nutzen und Vergnügen der Liebhaber der Geographie eröfnet*. Chemnitz: Stößel, 1764-1767; Chemnitz: Stößel und Putscher.

Hager, J. G. 1764-1766 [1766]. 'IV. J. I. P. J. I. Kindergeographie.' *Allgemeiner Büchersaal zum Nutzen und Vergnügen der Liebhaber der Geographie eröfnet*, Siebentes Stück (1765), 544-549. Chemnitz: Johann David Stößels Erben.

Hamberger, G. C. and Meusel, J. G. (eds). 1796. *Das gelehrte Teutschland, oder Lexocon der jetzt lebenden deutschen Schiftsteller*. Second volume, second edition. Lemgo: Meyersche Buchhandlung.

Hartmann, J. D. 1794. *Kurzer Abriß der neuesten Erdbeschreibung zum Gebrauche in Schulen*. Second edition. Frankfurt/Main and Leipzig.

Hartmann, J. M. 1799. *Anton Friedrich Büschings Erdbeschreibung. Zwölfter Theil, welcher Afrika begreift. Erster Band: das Paschalik Aegypten*. Hamburg, bei Carl Ernst Bohn.

Hassel, F. 1816. *Vollständiges Handbuch der neuesten Erdbeschreibung und Statistik. Erster Band, erste Abtheilung, welche das brittische Reich, Spanien und Portugal enthält*. Berlin: In der Vossischen Buchhandlung.

Hauber, E. D. 1727. *Nützlicher Discours, Von dem gegenwärtigen Zustand der Geographie, Besonders in Teutschland, Nebst einem Vorschlag zu noch fernerer Verbesserung derselben, ingleichem von der wahl eines vollständigen und in rechter Ordnung verfaßten Außerlesenen Atlantis, Und einer Verzeichniß derer besten so wohl alter als neuer Land-Charten, sonderlich von Teutschland, Deme angefügt Zusätze und Verbesserungen Zu seinem Versuch einer umständlichen Historie der Land-Charten*. Ulm: Daniel Bartholomai.

Hauptmann, J. G. 1766 [1764]. 'Johann Gottfried Hauptmanns, Hochverdienten Directors an dem Gymnasio zu Gera, Sendschreiben von Einer bequemen Lehrart in der Erdbeschreibung auf Gymnasien und Schulen' In Hager, J. G. (ed). *Geographischer Büchersaal*, Vol. 1. (9), 653-662.

Henning, J. W. M. 1812. *Leitfaden beim methodischen Unterricht in der Geographie besonders für Eltern und Lehrer in Elementarschulen, mit 12 Holzschnitten*. Iferten: Literarisches Bureau.

Herder, J. 1972 [1769]. *Journal meiner Reise im Jahr 1769*. Leipzig: Reclam.

Herder, J. G. 1784. 'Von der Annehmlichkeit, Nützlichkeit und Nothwendigkeit der Geographie, 1784'. In Müller, J. G. (1810) *Herder's Sämtliche Werke. Zur Philosophie und Geschichte. Zwölfter Theil*. Tübingen: J. G. Cotta'sche Buchhandlung, 61-68.

Herder, J. G. 1887 [1787]. 'Idee zum ersten patriotischen Institut für den Allgemeingeist Deutschlands.' In Suphan, B. (ed). *Herders Sämtliche Werke*. Sechzehnter Band. Berlin: Weidmannsche Buchhandlung, 600-616.

Hering, K. G. 1728. *Gedancken von der Nutzbarkeit und Nothwendigkeit der Geographie, Auch von der Methode und Ordnung dieselbe zu tractiren, Uber des Hrn. Doct. Und Prof. Leysers Von der Allgemeinen Art darin abgehende Meinung, Mit darzu dienlichen Anmerckungen entworfen*. Berlin: Johann Andreas Rüdiger.

Hübner, J. 1693. *Kurtze Fragen aus der alten und neuen Geographie*. 2nd edition. Leipzig: Johann Friedrich Gleditsch.

Hübner, J. 1696. *Kurtze Fragen aus der alten und neuen Geographie*. 6th edition. Leipzig: Johann Friedrich Gleditsch.

Hübner, J. 1755. *Kurtze Fragen aus der alten und neuen Geographie: bis auf gegenwärtige Zeit sorgfältig fortgesetzt auch mit neuen Zusätzen vermehret, und durchgehends nach dem neuesten Zustand der politischen Welt verbessert, Nebst einer nützlichen Einleitung vor die Anfänger, und Vorrede von den besten Land-Charten*. Reworked edition. Regenspurg; Wien: Bader.

Hübner, J. 1760. *Kurtze Fragen aus der alten und neuen Geographie: bis auf gegenwärtige Zeit sorgfältig fortgesetzt auch mit neuen Zusätzen vermehret, und durchgehends nach dem neuesten Zustand der politischen Welt verbessert, Nebst einer nützlichen Einleitung vor die Anfänger, und Vorrede von den besten Land-Charten*. Reworked edition. Regenspurg; Wien: Bader.

Hübner, J. 1764. *Kurtze Fragen aus der alten und neuen Geographie*. *Mit einer nützlichen Einleitung für Anfänger*. Reworked edition. Leipzig: Johann Friedrich Gleditsch.

Hübner, J. 1767. *Kurtze Fragen aus der alten und neuen Geographie bis auf gegenwärtige Zeit: sorgfältig fortgesetzt, auch mit nene Zusätzen vermehret, und durchgehends nach dem neuensten Zustand der politischen Welt verbessert; nebst einer nützlichen Einleitung vor die Anfänger*. Reworked edition. Regenspurg; Wien: Bader.

Hübner, J. 1710. *Vollständige Geographie*. Hamburg: König und Richter.

Hübner, J. 1730. *Vollständige Geographie*. Hamburg: König und Richter.

Hübner, J. 1753. *Vollständige Geographie*. Seventh edition. Frankfurt.

Hübner, J. 1756. *Vollständige Geographie*. Eighth edition.Hamburg: König.

Ickstatt, J. A. Freyherr v. 1774. *Akademische Rede von der stufenmäßigen Einrichtung der niedern und höheren Landschulen in Rücksicht auf die churbaierischen Lande welche an dem Geburtsfeste Seiner churfürstlichen Durchlaucht in Baiern u.u. in dem akademischen Saale in München den 28. März 1774 abgelesen von Johann Adam Freyherrn von Ickstatt*...Ingolstadt: Ferdinand Lutzenberger.

Jacobi, J. H. 1791. *Die Geographie in Tabellen. Zum Gebrauch beym Unterricht*. Tübingen: Cotta.

Kant, I. 1784. 'Was ist Aufklärung?' *Berlinische Monatsschrift*. Dezember-Heft 1784. S. 481-494.

Kant, I. 1781. *Critik der reinen Vernunft*. Riga: Hartknoch.

Kant, I. 1839 [1802]. *XIII. Vorlesungen über physische Geographie. Auf Verlangen Kant's aus seiner Handschrift herausgegeben von Friedrich Theodir Rink*. In Rosenkranz, K. and Schubert, F. W. (eds) *Immanuel Kant's Sämtliche Werke*. Sechster Theil Leipzig. Leopold Voss, 415-775.

Keyser, G. H. 1810a. *Elementar-Geographie des Königreichs Baiern zum Gebrauche der Schulen*. München.

Keyser, G. H. 1810b. *Lehrbuch der Länder- und Staatenkunde. Auf eine einfachere Methode gebauet*. München.

Keyser, G. H. 1810c. 'Ueber die Umschaffung der Geographie.' *Morgenblatt für gebildete Stände*, 132 (Sonnabend, 2. Juni), 526-528.

Kindermann, J. K. 1779. *Geographischer Abriss des Herzogthums Steyermark* . Grätz (Graz).

Kleinsorg, R. 1782. *Abriß der Geographie zum Gebrauche in und außer Schulen, nebst der besondern Geographie des Erzstifts Salzburg, und einem Unterricht vom Weltgebäude, und vom Gebrauche der globen*. Salzburg: gedruckt, und verlegt von der Hochfürstl. Waisenhausbuchhandlung.

Kleinsorg, R. 1787. *Abriß der Geographie zum Gebrauche in und außer Schulen, nebst der besondern Geographie des Erzstifts Salzburg, und einem Unterricht vom Weltgebäude, und vom Gebrauche der globen*. Zweyte verbesserte, und mit einem allgemeinen Register versehene Auflage. Salzburg: gedruckt, und verlegt von der Hochfürstl. Waisenhausbuchhandlung.

Kleinsorg, R. 1797. *Abriß der Geographie zum Gebrauche in und außer Schulen*. Dritte, durchaus verbesserte, ansehnlich vermehrte, und mit einem allgemeinen Register versehene Auflage. Salzburg: Franz Xaver Duyle.

Klopstock, F. G. 1774. *Die Deutsche Gelehrtenrepublic*. Hamburg: J.J.C. Bode.

Köhler, J. D. 1724. *Anleitung zu der verbesserten Neuen Geographie*. *vornemlich zum Gebrauch der Weigelschen Landcharten*. Nürnberg: Christoph Weigel.

Köhler, J. D. 1730-1737. *Kurtze und gründliche Anleitung zu der alten und mittlern Geographie*. Nebst XII. Land-Kärtgen. Nürnberg: Weigel.

Köhler, J. D. 1737-1765. *Kurze und gründliche Anleitung zur alten und mittlern Geographie*. Nürnberg: Christoph Weigels des Aeltern, Kunsthändlers Seel. Wittwe.

Köhler, J. D. 1765-1772. *Kurtze und gründliche Anleitung zu der Alten und Mittlern Geographie*. Nürnberg: Christoph Weigels des Aeltern, Kunsthändlers Seel. Wittwe.

Krug, W. T. 1796-1813. *Versuch einer systematischen Enzyklopädie der Wissenschaften*. Vol 3, issue 3. Wittenberg: Leipzig; Winkelmann: Barth.

Krug, W. T. 1801. 'Entwurf einer neuen, der Natur und Vernunft gemäßen Eintheilung der Erdoberfläche. Ein geographischer Versuch.' *Allgemeine Geographische Ephemeriden*, 7(6): 493-502.

Lebrecht, M. (1804). *Versuch einer Erdbeschreibung des Grossfürstenthums Siebenbürgen*. Second edition. Hermannstadt: Martin Hochmeister.

Lenglet du Fresnoy, N. 1741. *Kurz verfasste Kinder-Geographie: in acht und vierzig Lectionen eingetheilet, und mit den benöthigten Charten versehen; nunmehr aber von neuem übersehen, in vielen Stücken deutlicher gemachet, mit nicht wenigen nützlichen Zusätzen vermehret, und insonderheit zum Gebrauch für Teutsche eingerichtet*. Nürnberg: George Peter Monath.

Lenglet du Fresnoy, N. 1746. *Kurz verfasste Kinder-Geographie: in acht und vierzig Lectionen eingetheilet, und mit den benöthigten Charten versehen. in Franz. Sprache verfasset durch den Herrn Lenglet Du Fresnoy, und zum Nutzen der Jugend in die Teutsche übers., nunmehr aber von neuem übersehen, in vielen Stücken deutlicher gemachet, mit nicht wenigen nützlichen Zusätzen vermehret, und insonderheit zum Gebrauch für Teutsche eingerichtet*. Zweyte, verbesserte und vermehrte Auflage [Second, improved and extended edition]. Nürnberg: George Peter Monath.

Lenglet du Fresnoy, N. 1758. *Kurzverfassete Kinder-Geographie: in acht und vierzig Lectionen eingetheilet, und mit benötigten Charten versehen. In französischer Sprache ausgefertiget durch den Herrn Abt Lenglet du Fresnoy, und zum Nutzen der Jugend in die teutsche übersetzet, nunmehr aber von neuem übersehen, in vielen Stücken deutlicher gemachet, mit nicht wenigen nützlichen Zusätzen vermehret, und insonderheit zum Gebrauch für Teutsche eingerichtet*. Dritte, um vieles verbesserte, und vermehrte, Auflage [Third, comprehensively improved and extended edition]. Nürnberg: George Peter Monath.

Lenglet du Fresnoy, N. 1764. *Kurzverfassete Kinder-Geographie: in acht und vierzig Lectionen eingetheilet, und mit benötigten Charten versehen. In französischer Sprache ausgefertiget durch den Herrn Abt Lenglet du Fresnoy, und zum Nutzen der Jugend in die teutsche übersetzet, nunmehr aber von neuem übersehen, in vielen Stücken deutlicher gemachet, mit nicht wenigen nützlichen Zusätzen vermehret*. Fünfte, um vieles verbesserte, und vermehrte, Auflage [Fourth, comprehensively improved and extended edition]. Nürnberg: George Peter Monath.

Lenglet du Fresnoy, N. 1769. *Kurzverfassete Kinder-Geographie: in acht und vierzig Lectionen eingetheilet, und mit benötigten Charten versehen. In französischer Sprache ausgefertiget durch den Herrn Abt Lenglet du Fresnoy, und zum Nutzen der Jugend in die teutsche übersetzet, nunmehr aber von neuem übersehen, in vielen Stücken deutlicher gemachet, mit nicht wenigen nützlichen Zusätzen vermehret, und insonderheit zum Gebrauch für Teutsche eingerichtet*. Sechste, um vieles

verbesserte, und vermehrte, Auflage [Sixth, comprehensively improved and extended edition]. Nürnberg: Georg Peter Monath.

Lenglet du Fresnoy, N. 1781. *Kurzverfaßte Kinder Geographie in acht und vierzig Lectionen eingetheilet, und mit benöthigten Charten versehen*. Mit Churfürstlich Sächsischer Freiheit. Neue durchaus umgearbeitete und sehr vermehrte Auflage [New, edited and comprehensively extended edition]. Nürnberg: Georg Peter Monath.

Liechtenstern, v. J. M. (ed). 1801-1804. *Archiv für Geographie und Statistik, ihre Hülfswissenschaften und Litteratur mit vorzüglicher Rücksicht auf die österreichischen Staaten: verfasset von einer Gesellschaft Gelehrten u. hrsg. von Joseph Marx Freiherrn von Liechtenstern*. Prag: Verlag der schönfeldischen Niederlage; Wien: Bei der Expedition des Archivs für Geographie und Statistik.

Lindner, F. W. 1806. 'Beyträge zu einer bessern und zweckmäßigern Methode für den geographischen Unterricht.' *Zeitschrift für Pädagogik, Erziehung- und Schulwese*n, 1 (1-4): 265-279.

Locke, J. 1693. *Some Thoughts Concerning Education*. London: Printed for A. and J. Churchill.

Mannert, K. 1788. *Geographie der Griechen und Römer aus ihren Schriften dargestellt*. Mit zwey Kärtchen. Nürnberg: Ernst Christoph Grattenauer.

Meinecke, J. L. G. 1809. 'Über die Flüsse und Gebirge als natürliche Grenzen.' *Monatliche Correspondenz zur Beförderung der Erd-und Himmelskunde*. Augustheft: 129-139.

Mendelssohn, M. 1784. 'Über die Frage: Was heißt Aufklären.' *Berlinische Monatsschrift*. Heft 4, 193-200.

Mentelle, E.1785-1793. *Die vergleichende Erdbeschreibung; oder System der alten und neuen Erdbeschreibung aller Völker und Zeiten: Mit analytischen Tafeln und vielen Karten versehen, die sowohl den alten und neuen Zustand der Völker mit einander vergleichen, als besonders den Zustand eines Landes in ältern und neuern Zeiten vorstellen ; Aus dem Französischen übersezt und mit einigen Anmerkungen versehen / Von Herrn Mentelle, Geschichtschreiber des Grafen von Artois, Pensionair des Königes, Professor emeritus der Geschichte und Erdbeschreibung an der Königlichen Kriegsschule*. Winterthur : bey Heinrich Steiner und Compagnie.

Michaelis, J. D. 1768. *Raisonnement über die protestantischen Universitäten in Deutschland; Theil 1*. Frankfurt und Leipzig:

Michaelis, J. D. 1770. *Raisonnement über die protestantischen Universitäten in Deutschland; Theil 2*. Frankfurt und Leipzig.

Michaelis, J. D. 1773. *Raisonnement über die protestantischen Universitäten in Deutschland; Theil 3*. Frankfurt und Leipzig.

Michaelis, J. D. 1776. *Raisonnement über die protestantischen Universitäten in Deutschland; Teil 1*. Frankfurt und Leipzig: in der Andreaischen Buchhandlung.

Müller, J. G. 1789. 'Versuch über das Ideal einer Erdbeschreibung'. In *Philosophische Aufsätze*. Breslau: Bey Gottlieb Löwe, 121-148.
Niethammer, F. I. 1808. *Der Streit des Philanthropanismus und Humanismus in der Theorie des Erziehungs-Unterrichts unsrer Zeit*. Jena: Friedrich Frommann.

Nitsch, P. F. A. 1792. *Kurzer Entwurf der alten Geographie*. Zweyte Auflage. Leipzig: J. G. Heinsius und Sohn.

Norrmann, G. P. H. 1785. *Geographisches und historisches Handbuch der Länder-, Völker- und Staatenkunde mit beständiger Rücksicht auf physikalische Beschaffenheit, Produkte, Industrie, Aufklärung, Politik und Menschengeschichte als ein Lehrbuch und Lesebuch für alle Stände*. Hamburg: Benjamin Gottlob Hoffmann.

Norrmann, G. P. H. 1798. *Geographisches und Historisches Handbuch der Länder-Völker-und Staatenkunde mit beständiger Rücksicht auf physikalische Beschaffenheit, Produkte, Industrie, Handlung u.u. Zweyten Bandes vierter Theils, Erste Abteilung*. Hamburg: Benjamin Gottlob Hoffmann.

Osterwald, F. S. 1763. *[Historische Erdbeschreibung] Herrn Friedrich Osterwalds, Pannerherrn in Neuschatel, Historische Erdbeschreibung: zum Nutzen deutscher Jugend vorzüglich eingerichtet. Derselben sind beygefüget Anfangs-Gründe dieser Wissenschaft für junge Kinder, eine Einleitung in die Sphärenlehre und die Erdbeschreibung der Aeltern Zeiten*. Straßburg: Johann Gottfried Bauer.

Osterwald, F. S. 1770a. *[Historische Erdbeschreibung] Herrn Friedrich Osterwalds, Pannerherrn in Neuschatel, Historische Erdbeschreibung: zum Nutzen deutscher Jugend vorzüglich eingerichtet. Derselben sind beygefüget Anfangs-Gründe dieser Wissenschaft für junge Kinder, eine Einleitung in die Sphärenlehre und die Erdbeschreibung der Aeltern Zeiten*. Strasbourg: Johann Gottfried Bauer.

Osterwald, F. S. 1770b. *Historische Erdbeschreibung zum Gebrauche der Jugend*. Strasbourg: München: Johann Nepomuk Fritz.

Osterwald, F. S. 1776. *Historische Erdbeschreibung zum Gebrauche der Jugend*. München: Johann Nepomuk Fritz.

Osterwald, F. S. 1778. *Historische Erdbeschreibung zum Nutzen deutscher Jugend eingerichtet*. *Herrn Friedrich Osterwalds Historische Erdbeschreibung zum Nutzen deutscher Jugend eingerichtet. Cours élémentaire de géographie ancienne et moderne, et de sphère, par demandes et réponses. Derselben sind beygefüget Anfangsgründe dieser Wissenschaft für junge Kinder, eine Einleitung in die*

*Sphärenlehre und die Erdbeschreibung der Aeltern Zeiten*. Straßburg: Bauer und Treuttel.

Osterwald, F. S. 1783. *Historische Erdbeschreibung zum Gebrauche der Jugend in den churfürstlichen Gymnasien in Baiern*. München: Johann Nepomuk Fritz.

Osterwald, F. S. 1785. *Historische Erdbeschreibung zum Nutzen deutscher Jugend eingerichtet. Derselben sind beygefüget Anfangsgründe dieser Wissenschaft für junge Kinder, eine Einleitung in die Sphärenlehre und die Erdbeschreibung der ältern Zeiten*. Straßburg: Treuttel.

Osterwald, F. S. 1791. *Historische Erdbeschreibung nebst Anfangs-Gründen dieser Wissenschaft für junge Kinder, eine Einleitung in die Sphärenlehre und die Erdbeschreibung der älteren Zeiten*. Straßburg: Treuttel.

Raff, G. C. 1776. *Geographie für Kinder. Mit einer Vorrede des Herrn Professor Feders*. Göttingen: Johann Christian Dieterich.

Reccard, G. C. 1765a. *Auszug aus dem Lehr-Buche darin ein kurzgefaßter Unterricht aus verschiedenen Wissenschaften gegeben wird. Zum Gebrauche der Land-Schulen in den Königl. Preußischen Provinzen*. Mit einem Kupfer. Berlin: Verlag des Buchladens der Real-Schule.

Reccard, G. C. 1765b. *Lehr-Buch darin ein kurzgefaßter Unterricht aus verschiedenen philosophischen und mathematischen Wissenschaften, der Historie und Geographie gegeben wird. Zum Gebrauch in Schulen*. Mit Kupfern. Berlin: Verlag des Buchladens der Real-Schule.

Reccard, G. C. 1766. *Lehr-Buch darin ein kurzgefaßter Unterricht aus verschiedenen philosophischen und mathematischen Wissenschaften, der Historie und Geographie gegeben wird. Zum Gebrauch in Schulen*. Mit Kupfern. Zweite Auflage [Second edition]. Berlin: Verlag der Realschul-Buchhandlung.

Reccard, G. C. 1768. *Auszug aus dem Lehr-Buche darin ein kurzgefaßter Unterricht aus verschiedenen Wissenschaften gegeben wird. Zum Gebrauche der Land-Schulen in den Königl. Preußischen Provinzen*. Mit einem Kupfer. Zweite, verbesserte Auflage [Second, improved edition]. Berlin: Verlag der Realschul-Buchhandlung.

Reccard, G. C. 1770. *Lehr-Buch darin ein kurzgefaßter Unterricht aus verschiedenen philosophischen und mathematischen Wissenschaften, der Historie und Geographie gegeben wird. Zum Gebrauch in Schulen*. Mit Kupfern. Dritte verbesserte Auflage [Third improved edition]. Berlin: Verlag des Buchladens der Real-Schule.

Reccard, G. C. 1774. *Lehr-Buch darin ein darin ein kurzgefaßter Unterricht aus verschiedenen philosophischen und mathematischen Wissenschaften, der Historie und Geographie gegeben wird. Zum Gebrauch in Schulen*. Mit Kupfern. Vierte,

vermehrte und verbesserte Auflage. [Fourth and improved edition]. Berlin: Verlag der Realschul-Buchhandlung.

Reccard, G. C. 1775. *Auszug aus dem Lehr-Buche darin ein kurzgefaßter Unterricht aus verschiedenen Wissenschaften gegeben wird. Zum Gebrauche der Land-Schulen in den Königl. Preußischen Provinzen*. Mit einem Kupfer. Dritte, verbesserte Auflage [Third, improved edition]. Berlin: Verlag des Buchladens der Real-Schule.

Reccard, G. C. 1777. *Lehr-Buch darin ein darin ein kurzgefaßter Unterricht aus verschiedenen philosophischen und mathematischen Wissenschaften, der Historie und Geographie gegeben wird*. *Zum Gebrauch in Schulen*. Mit Kupfern. Fünfte, vermehrte und verbesserte Auflage. [Fifth and improved edition]. Berlin: Verlag der Realschul-Buchhandlung.

Reccard, G. C. 1782-1783. *Lehr-Buch darin ein darin ein kurzgefaßter Unterricht aus verschiedenen philosophischen und mathematischen Wissenschaften, der Historie und Geographie gegeben wird*. *Zum Gebrauch in Schulen*. Mit Kupfern. Sechste, vermehrte und verbesserte Auflage. [Sixth and improved edition]. Berlin: Verlag der Realschul-Buchhandlung.

Ritter, C. 1806. 'Einige Bemerkungen über den methodischen Unterricht in der Geographie.' *Zeitschrift für Pädagogik, Erziehung- und Schulwese*n, 2:198-218.

Röder, P. L. H. 1805. *Erdbeschreibung von Europa. Vorzüglich zum Gebrauch der Schulen. Verfaßt von P.L.H. Röder, Pfarrer zu Thamm im Würtembergischen*. Reutlingen: Jakob Ulrich Mäcken und Comp.

Rommel, v. C. 1806. 'Ueber die Geographie und den geographischen Stil.' *Allgemeine Geographische Ephemeriden*, 21: 393-397.

Rotermund, H. W. 1823. *Das gelehrte Hannover, oder Lexikon von Schriftstellern und Schriftstellerinnen, gelehrten Geschäftsmännern und Künstlern, die seit der Reformation in und außerhalb sämtlichen zum jetzigen Königreich Hannover gehörenden Provinzen gelebt haben und noch leben*.. Erster Band. Bremen: Carl Schünemann.

Rousseau, J. J. 1762. *Emile – ou de l'éducation*. Paris: Desaint & Saillant.

Rumpf, D. F. 1798-1804. *Gallerie der Welt in einer bildlichen und beschreibenden Darstellung von merkwürdigen Ländern, Völkern, Thieren, Natur- und Kunsterzeugnissen, von Ansichten der schönen und erhebenen Natur, von alten und neuen Denkmalen und beständiger Rücksicht auf Beförderung der Humanität und Aufklärung*. Berlin: Oehmigke der Jüngere.

Schatz(en), J. J. 1741. *Erste Anfangs-Gründe Der Geographie, In welchen Nach Anleitung achtzehen nach des seligen Herrn Johann Hübners verbesserten Methode illuminirten Homännischen General- und Special-Charten Die vornehmsten Reiche*

*der Welt nach ihrer Lage, Eintheilung und Beschaffenheit ... vorgelegt werden : Nebst einem Anhang, darinnen das Systema Solare & Planetarum ... erörtert wird...* Nürnberg: Homännische Erben.

Schatz(en), J. J. 1749a. *Examen Geographicum, Das ist Auserlesene Fragen aus der Geographie, Deren Beantwortung aus einem jeden wohl-eingerichteten Geographischen Systemate mag genommen werden*, *Zur nöthigen Wiederholung aufgesetzt und nebst einem Gründlichen und umständlichen Bericht, auf was Art und Weise die Geographie am füglichsten mag gelehret und erlernet werden*, ... Straßburg: Beck.

Schatz(en), J. J. 1749b. *Kern der Geographie, Das ist, kurtze und deutliche Beschreibung unserer Erd-Kugel: nach derselben vier bekanten Theilen, und den darinn befindlichen besonderen Reichen und vornehmsten Staaten ; zum Behuf der Jugend beyderley Geschlechts, und zwar Nicht nur den ersten Anfängern in dieser Wissenschaft zu einer hinlänglichen Erkäntniß, sondern auch andern zu einer beständigen Wiederholung aufgesetzt*. Strasburg: Beck.

Schatz(en), J. J. 1754. *Anfangsgründe der Geographie: in welchen nach Anleitung XX. illuminirter homannischer General- und Specialcharten die vornehmste Reiche der Welt* .. Dritte und vermehrte Auflage [Third and extended edition]. Franckfurt; Leipzig; Wienn: Krauss.

Schatz(en), J. J. 1760. *Kern der Geographie: Das ist kurze und deutliche Beschreibung unserer Erd-Kugel, nach derselben vier bekannten Theilen, und den darinn befindlichen besondern Reichen und vornehmsten Staaten; Zum Behuf der Jugend beyderley Geschlechts, und zwar Nicht nur den ersten Anfängern in dieser Wissenschaft zu einer hinlänglichen Erkänntniß, sondern auch andern zu einer beständigen Wiederholung aufgesetzt*. 3. und vermehrte Auflage. Straßburg: Schmidt.

Schatz(en), J. J. 1762. *Examen Geographicum: das ist, auserlesene Fragen aus der Geographie ... zur nöthigen Wiederholung aufgesetzt und nebst einem ... Bericht, auf was Art und Weise die Geographie am füglichsten mag gelehret und erlernet werden*, ... Neue Aufl.. Leipzig.

Schatz(en), J. J. 1764a. *Examen Geographicum*: *das ist auserlesene Fragen aus der Geographie, deren Beantwortung aus einem jeden wohl eingerichteten Geographischen Systemate mag genommen werden. Zur nöthigen Wiederholung aufgesetzt, und nebst einem gründlich- und umständlichen Bericht, auf was Art und Weise die Geographie am füglichsten mag gelehret und erlernet werden*, ... Neue verbesserte Auflage. Straßburg: Schmidt.

Schatz(en), J. J. 1764b. *Kern der Geographie. Das ist kurze u. deutl. Beschreibung unserer Erdkugel nach derselben 4 bekannten Theilen, u. d. darinn befindlichen bes. Reichen u. vornehmsten Staaten; zum Behuf d. Jugend beyderley Geschlechts, u. zwar nicht nur d. ersten Anfängern in dieser Wiss. zu einer hinlängl.Erkenntniß,*

*sondern auch andern zu einer beständigen Wiederholung aufgesetzt*. Straßburg: Schmidt.

Schatz(en), J. J. 1766a. *Examen Geographicum, Das ist, auserlesene Fragen aus der Geographie ... zur nöthigen Wiederholung aufgesetzt und nebst einem jeden wohl-eingerichteten Geographischen Systemate mag genommen werden, Zur nöthigen Wiederholung aufgesetzt und nebst einem Gründlichen und umständlichen Bericht, auf was Art und Weise die Geographie am füglichsten mag gelehret und erlernet werden, Zur nöthigen Wiederholung aufgesetzt und nebst einem Gründlichen und umständlichen Bericht, auf was Art und Weise die Geographie am füglichsten mag gelehret und erlernet werden, Den Liebhabern dieser Wissenschaft zum Besten an das Licht gestellet*. Neue Aufl.. Leipzig.

Schatz(en), J. J. 1766b. *Kern der Geographie, d. i. kurze deutliche Beschreibung der Erdkugel*. Frankfurt; Leipzig.

Schatz(en), J. J. 1774. Kern der Geographie, *Kern der Geographie: Das ist kurze und deutliche Beschreibung unserer Erd-Kugel, nach derselben vier bekannten Theilen, und den darinn befindlichen besondern Reichen und vornehmsten Staaten; Zum Behuf der Jugend beyderley Geschlechts* Gesellschaft ... Neue u. durchgängig verbesserte Auflage. Wien: Kraus.

Schatz(en), J. J. 1775. *Kern der Geographie, das ist kurze und deutliche Beschreibung unserer Erd-Kugel, nach derselben 4 bekannten Theilen, u. d. darinnen befindl. besondern Reichen u. vornehmsten Staaten*. Rostock: Kopp.

Schatz(en), J. J. 1776a. *Examen Geographicum. Das ist auserlesene Fragen aus der Geographie, deren Beantwortung aus einem jeden wohleingerichteten Geographischen Systemate mag genommen werden. Zur nöthigen Wiederholung aufgesetzt, und nebst einem gründlichen und umständlichen Bericht, auf was Art und Weise die Geographie am füglichsten mag gelehret und erlernet werden. Den Liebhabern dieser Wissenschaft zum Besten an das Licht gestellet von M. Johann Jacob Schatzen, des Straßburgischen Gymnasii Gymnsiarcha, und der dasigen Universität Bibliothecario*. Frankfurt und Leipzig: Johann Paul Kraus.

Schatz(en), J. J. 1776b. *Kern der Geographie, das ist Kurze und deutliche Beschreibung unserer Erd-Kugel ; Zum Behuf der Jugend. Stark vermehrte und von den eingeschlichenen Fehlern gereiniget durch Friedrich Wilhelm Taube*. Neue und verbesserte Auflage.Wien: Kraus.

Schatz(en), J. J. 1784. *Kern der Geographie, das ist kurze und deutliche Beschreibung unserer Erd-Kugel nach derselben 4 bekannten Theilen, u. d. darinnen befindl. besondern Reichen u. vornehmsten Staaten. Aufgesetzt von Johann Jacob Schatzen, stark vermehrt und ... gereiniget durch Friedrich Wilhelm Taube*. Wien: Krauß.

Schiller, J. C. F. 1925 [1793-1795]. *Briefe über die ästhetische Erziehung des Menschen*. Frankfurt/M.: Diesterweg.

Schlichthorst, H. 1790. 'Grundsätze nach welchen das System der alten Erdbeschreibung dargstellt werden muss mit Anwendung auf des Herrn Mag. Mannert Geographie der Griechen und Römer.' *Magazin für öffentliche Schulen und Schullehrer*, Erster Band: 153-188.

Schlözer, v. A. L. 1777. *Neue Erdbeschreibung von ganz Amerika. Aus dem Englischen*. Erster Band. Göttingen; Leipzig: Weygand.

Schmidt, C. B. 1795. *Vorschläge zur Methodik in der Geographie für Anfänger und Geübte. Ein Handbuch für Lehrer in Bürgerschulen*. Danzig: Ferdinand Troschel.

Schmid, C. C. E. 1810. *Allgemeine Encyclopädie der Wissenschaften und Methodologie*. Jena: in der akademischen Buchhandlung.

Schmidt, F. A. (ed). 1825. *Neuer Nekrolog der Deutschen*. Ilmenau: Voigt.

Schneider and Weigel. 1780-1785. *Bibliothek der neuesten Reisebeschreibungen*. Nürnberg and Leipzig: Christoph Weigel und Schneider.

Schoenemann, G. K. T. 1799. *Grundriß einer Encyclopädie der historischen Wissenschaften*. Göttingen: Johann Christian Dieterich.

Schulze, J. M. F. 1787. *Kleines Lehrbuch der natürlichen Gränz- und Länderkunde nebst einer vorhergehenden Abhandlung über Geographie und geographische Lehrmethode. In Verbindung mit einer Naturgränzenkarte von den Ländern der obern Hemisphäre*. Halle: Johann Jacob Gebauer.

Schulze, J. M. F. 1786. *Englisch-geographisches Lesebuch. Ein zweckmaessiger Auszug aus den besten Englischen Reisebeschreibungen und andern geographischen Werken zum Gebrauch für den Unterricht in der Englischen Sprache eingerichtet*. Halle: Johann Gebauer.

Schulze, J. M. F. 1788. *Französisch-geographisches Lesebuch. Zum Behuf des Real-Sprachenunterrichts*. [alternative subtitle:] *Ein zweckmaessiger Auszug aus den besten Französischen Reisebeschreibungen und andern geographischen Werken*. Berlin: August Mylius.

Schumacher, J. H. 1754. *Versuch, die dunklen und versteckten Geheimnisse in den hieroglyphischen Denkbildern der Egypter, Chaldäer Perser, Phönizier, Phrygier, Griechen etc. wie auch der Juden und Christen aus den Urkunden der verborgenen Geschichte, der Erdkunde, aus Münzen und Steinen, näher aufzuklären*. Wolfenbüttel; Leipzig: Meißner.

Sprengel, M. C. 1783. *Geschichte der wichtigsten geographischen Entdeckungen bis zur Ankunft der Portugiesen in Japan 1542*. Zweite vermehrte Auflage [Second, extended edition]. Halle: Hemmerde und Schwetschke.

Sprengel, M. C. 1792. *Geschichte der wichtigsten geographischen Entdeckungen*. Halle: Im Verlag der Hmmerdeschen Buchhandlung.

Springer, C. E. 1769. *Über die protestantischen Universitäten in Deutschland. Neues Raisonnement von einigen Patrioten*. Strasbourg.

Stein, C. G. D. 1811. *Geographie für Real- und Bürgerschulen*. Leipzig: J. C. Hinrichs.

Steiner, G. 1790. *Georg Forster. Werke in vier Bänden. 4. Band* Briefe. Insel: Frankfurt am Main.

Sulzer, J. G. 1759. *Kurzer Begriff aller Wissenschaften und andern Theile der Gelehrsamkeit, worin jeder nach seinem Inhalt, Nuzen und Vollkommnheitn kürzlich beschrieben wird*. Zweyte ganz veränderte und sehr vermehrte Auflage. Leipzig: Johann Christian Langenheim.

Sulzer, J. G. 1771. *Vorübungen zur Erweckung der Aufmerksamkeit und des Nachdenkens*. *Zum Gebrauch einiger Klassen des königl. Joachimthalischen Gymnasium*. Berlin: Friedrich Nicolai, Buchhändler unter der Stechbahn.

Vierthaler, F. M. 1796. *Geographie von Salzburg: zum Gebrauche in unsern Schulen*. Salzburg: Mayr.

Volz, J. C. 1765. *Grundriß der Erdbeschreibung: als ein Anhang zu J. G. Essichs Einleitung in die Welt-Historie*. Stutgart: Metzler.

Volz, J. C. 1773. *Grundriß der Erdbeschreibung: als ein Anhang zu J. G. Essichs Einleitung in die Welt-Historie*. Stutgart. Zweyte vermehrte und verbesserte Ausgabe [Second, extended, and improved edition].
Stuttgart: Metzler.

Walther, F. L. 1785. *Neueste Erdkunde, welche Asien, Afrika, Europa, Amerika, die Südländer oder den fünften Welttheil und die Polarländer nebst einem Anhange von der natürlichen und wissenschaftlichen Erdkunde, aus den neuesten und zuverläßigsten Reisebeschreibungen, historischen Zeit- und andern Schriften, enthält: Nebst einer neuen Weltkarte, worauf Cooks und anderer Reisen befindlich*. Nürnberg and Altdorf: George Peter Monath.

Watermeyer, A. A. 1782. *Statistisch-Historisch-Geographisches Handbuch oder ein faslicher Unterricht für die, welche einige Länder- und Staten-Kentnis erlangen wollen, zu einem Jahrscursus*. Hamburg: B. G. Hoffmann.

Weigelius, E. 1670. *P. P. Ober- und Unter-Welt. das ist/ Eine neue Art der Himmels- und Erd-Kugel : dadurch nicht allein alle Erscheinungen der Welt/ ... nach beyderley Grundsätzen der Gelehrten: als unter dem Himmel/ durch Feuer/ Luft/ Wasser/ Erdreich/ mit sehr deutlichen und anmuthigen Vorbildungen dargestellet: Sondern auch unterschiedene Vorthel/ die Himmels-Kunst und Erdbeschreibung desto leichter zu begreiffen/ an die Hand gegeben werden*. Jena: Bauhofer.

Wernher, P. C. 1786. *Handbuch der neuesten Erd- und Völkerkunde aus den vorzüglichsten und neuesten Quellen mit Rücksicht auf kirchliche, politische, ökonimische, militarische und häusliche Verfassung, auf Sitten und Gebräuche, Münzen, Handlung, geschichte und ältere Geographie jeder Nation unserers Erdkreises.* Bd. 1 [volume one]. Frankfurt am Main: Andreäischen Buchhandlung.

Westenrieder, L. v. 1775. *Kurze Erdbeschreibung Europäischer Staaten: Für die 1. Classe der churbaier. Gymnasien*. Amberg: Johann Georg Koch.

Westenrieder, L. v. 1776. *Erdbeschreibung für die churbaierischen Realschulen*. München.

Westenrieder, L. v. 1784a. *Erdbeschreibung der baierisch-pfälzischen Staaten*. München: Johann Baptist Strobl.

Westenrieder, L. v. 1784b. *Beschreibung des Wurm- oder Starnbergersee und der umherliegenden Schlösser etc. samt einer Landkarte*. München: Johann Baptist Strobel.

Westenrieder, L. v. [Anonymous]. 1808. *Nützliche Kenntnisse für die Jugend. Ein Lehr- und Lesebuch*. München: Joseph Lindauer.

Witte, S. S. 1793. *Allgemeine academische Encyclopädie und Methodologie*. Göttingen: Vandenhök und Ruprecht.

Wolff, C. v. 1721. *Vernünfftige Gedancken Von dem Gesellschafftlichen Leben der Menschen Und insonderheit Dem gemeinen Wesen Zu Beförderung der Glückseeligkeit des menschlichen Geschlechts. Den Liebhabern der Wahrheit mitgetheilet Von Christian Wolffen, Der Königl. Preuß. Friedrichs-Universität zur Zeit Pro-rectore*. Halle im Magdeburgischen: Renger.

Zeune, A. 1808. *Gea: Versuch einer wissenschaftlichen Erdbeschreibung*. Berlin: Wittich.

Zeune, A. 1811. *Goea: Versuch einer wissenschaftlichen Erdbeschreibung*. Second edition. Berlin: Julius Eduard Hitzig.

## Secondary sources

Adams, T. R. and Barker, N. 1993. 'A New Model for the Study of eh Book.' In Barker, N. (ed). *A Potencie of Life. Books in Society*. London: The British Library, 47-65.

Agnew, J. A. 2011. 'Space and Place.' In Agnew, J. A. and Livingstone, D. N. (eds). *The SAGE Handbook of Geographical Knowledge*. London: SAGE, 316-330.

Agnew, J. A. and Livingstone, D. N. 2011. 'Introduction', In Agnew, J. A. and Livingstone, D. N. (eds). *The SAGE Handbook of Geographical Knowledge*. London: SAGE, 1-18.

Ahnert, T. 2008. 'The Atlantic Enlightenment and German Responses to the American Revolution, *c.* 1775 to *c.*1800' In Manning, S. and Cogliano, F. D. (eds). *The Atlantic Enlightenment*. Aldershot: Ashgate, 97-112.

Akademie der Wissenschaften zu Göttingen. 2010. *Index deutschsprachiger Zeitschriften des 18. Jahrhunderts*. Göttingen: Akademie der Wissenschaften zu Göttingen.
Available at: http://adw.sub.uni-goettingen.de/idrz/pages/Main.jsf [last accessed on 12 April 2010]

Albrecht, v. C. 1998. *Geopolitik und Geschichtsphilosophie 1748-1798*. Berlin: Akademie Verlag.

Allan, D. 2003. 'The Scottish Enlightenment and the Politics of Provincial Culture: The Perth Literary and Antiquarian Society, c. 1784-1790.' *Eighteenth-Century Life*, 27(3): 1-30.

Aly, G. 2012. *Warum die Deutschen? Warum die Juden? Gleichheit, Neid und Rassenhass 1800–1933.* Frankfurt: Fischer Taschenbuch.

Ammermann, M. 1983. 'Gelehrtenbriefe des 17. und des frühen 18. Jahrhundert.' *Wolfenbüttler Schriften zur Geschichte des Buchwesens*, 9: 81-96.

Anderson, R. G. W., Caygill M. L., MacGregor A. G., and Syson, L. (eds). 2003. *Enlightening the British. Knowledge, discovery and the museum in the eighteenth century*. London: British Museum Press.

Appadurai, A. 1996. *Modernity at Large: Cultural Dimensions of Globalization*. Minneapolis and London: University of Minnesota Press.

Araújo, A. 2012. *Weltgeschichte in Göttingen: eine Studie über das spätaufklärerische universalhistorische Denken, 1756 - 1815*. Bielefeld: Transcript.

Ash, M. G. 2006. 'Wissens- und Wissenschaftstransfer – Einführende Bemerkungen.' *Berichte zur Wissenschaftsgeschichte*, 29: 181–189.

Baginsky, P. B. 1942. *German works relating to America. A list compiled from the collections of the New York Public Library*. New York: New York Public Library.

Baker, A. R. H. 2007. 'Classifying Geographical History.' *The Professional Geographer*, 59 (3): 344-356.

Banse, E. 1953. *Entwicklung und Aufgabe der Geographie. Rückblicke und Ausblicke einer Universalen Wissenschaft. Mit einem Beitrag über Schulgeographie von Rolf Hübner*. Stuttgart, Wien: Humboldt-Verlag.

Banse, E. 1954. *Entwicklung und Aufgabe der Geographie. Rückblicke und Ausblicke einer Universalen Wissenschaft. Mit einem Beitrag über Schulgeographie von Rolf Hübner*. Stuttgart, Wien: Humboldt-Verlag.

Barnes, B. 1982. *T. S. Kuhn and Social Science*. London: MacMillan.

Barnes, B. 1985. *About Science*. Oxford: Blackwell.

Barnes, B., Bloor, D., Henry, J. 1996. *Scientific Knowledge. A Sociological Analysis*. London: Athlone Press.

Barron R. M. 2003 – 2008. 'Huebner, Johann [1668-1731].' *Antique Maps*. Available at: http://www.barron.co.uk/Portrait+Reference+Library/Surnames+F+to+J/Huebner+Johann+1668-1731 [Last accessed on 8 February 2013].

Baxter, J. and Eyles, J. 1997. 'Evaluating research in social geography: establishing 'rigour' in interview analysis.' *Transactions of the Institute of British Geographers*, 22(4): 505-525.

Beck, H. 1973. *Geographie. Europäische Entwicklung in Texten undd Erläuterungen*. Freiburg: Alber.

Beck, H. 1982. *Grosse Geographen: Pioniere – Außenseiter – Gelehrte.* Berlin: Dietrich Reimer Verlag.

Beck, H. (ed). 2012. *Amerikanische Reise 1799-1804: Rekonstruiert und kommentiert von Hanno Beck*. Wiesbaden: Edition Erdmann in der marixverlag GmbH.

Bennett, T. and Joyce, P. 2010 (eds). *Material Powers. Cultural Studies, History and the Material Turn.* London: Routledge.

Bildarchiv Preußischer Kulturbesitz. 1971. Deutsche Geschichte in Dokumenten und Bildern. Deutsches Historisches Institut. Herausgeber Prof. Dr. William Hagen (Professor of History, University of California at Davis) University of Chicago. Available online at:
http://germanhistorydocs.ghi-dc.org/sub_image.cfm?image_id=2781&language=german
[Last accessed on 16 June 2013].

Binder. 1886. 'Niemeyer, August Hermann.' In Historische Kommission bei der Bayerischen Akademie der Wissenschaften (ed). *Allgemeine Deutsche Biographie*, 23 (1886), S. 677-679.
Available at: http://www.deutsche-biographie.de/pnd118786199.html?anchor=adb
[Last accessed on 16 January 2013].

Binder. 1888. 'Raff, Georg Christian.' In Historische Kommission bei der Bayerischen Akademie der Wissenschaften (ed). *Allgemeine Deutsche Biographie*, Band 27 (1888), 158–159.
Available at:
http://de.wikisource.org/w/index.php?title=ADB:Raff,_Georg_Christian&oldid=1700005 [Last accessed on 16 January 2013].

Birkenhauer, J. 2001. *Traditionslinien und Denkfiguren: Zur Ideengeschichte der Sogenannten Klassischen Geographie in Deutschland*. Stuttgart: Franz Steiner Verlag.

Björkman, S. 2003. 'Le vocabulaire "éclairé" en Suède.' Schneiders, W. (ed). 2003a. *The Enlightenment in Europe: Unity and Diversity. Les Lumières en Europe: Unité et Diversité. Aufklärung in Europa: Einheit und Vielfalt.* Berlin: Berliner Wissenschafts-Verlag, 115-148.

Black, J. L. 1986. *G.F. Müller and the Imperial Russian Academy of Sciences, 1725-1783: First Steps in the Development of the Historical Sciences in Russia*. Kingston-Montréal: McGill-Queen's University Press.

Blackbourn, D. 2012. 'Germany and the Birth of the Modern World.'. *Bulletin of the German Historical Institute Washington D.C.*, 51 (2012), 9-21.

Blanke, H. W. 1999. 'Historische Zeitschriften.' In Fischer, E., Haefs, W. and Mix, Y.-G. (eds). *Von Almanach bis Zeitung. Ein Handbuch der Medien in Deutschland 1700-1800*. München: Beck, 71-88.

Blanke, H. W. 2006. 'Wissen – Wissenserwerb – Wissensakkumulation – Wissenstransfer in der Aufklärung. Das Beispiel der *Allgemeinen Historie der Reisen* und ihre Vorläufer' In Lüsebrink. H.-J. (ed). *Das Europa der Aufklärung und die außereuropäische koloniale Welt*. Göttingen: Wallstein Verlag, 138-156.

Blanning, T. C. W. 1981. 'The Enlightenment in Catholic Germany.' In Porter, R. and Teich, M. (eds). *The Enlightenment in National Context*. New York: Cambridge University Press, 118-126.

Blitz, H.-M. 2000. *Aus Liebe zum Vaterland. Die Deutsche Nation im 18. Jahrhundert*. Hamburg: Hamburg Edition.

Bloor, D. 1983. *Wittgenstein: A Social Theory of Knowledge*. New York: Columbia University Press.

Bloor, D. 1991. *Knowledge and Social Imagery*. Second edition, chapter one 'The Strong Programme in the Sociology of Knowledge'. Chicago: Chicago University Press, 3-23.

Bloor, D. 1997. *Wittgenstein, Rules and Institutions*. London, New York: Routledge.

Bödeker, H. E. 2001. 'On the Origins of the "Statistical Gaze": Modes of Perception, Forms of Knowledge and Ways in Writing in the Early Social Sciences.' In Becker, P. and Clark, W. (eds). *Little tools of knowledge: historical essays on academic and bureaucratic practices*. Ann Arbor, Michigan: University of Michigan Press, 169-195.

Bödeker, H. E. 1990. 'Journals and Public Opinion.' In Hellmuth, E. (ed). *The Transformation of Political Culture: England and Germany in the Late Eighteenth Century*. Oxford: Oxford University Press [for] the German Historical Institute, 423-445.

Bödeker, E. H.; Iggers, G. G.; Knudsen, J. B., and Reill, P. H. 1986. 'Einleitung: Aufklärung und Geschichtswissenschaft'. In Bödeker, H. E.; Iggers, G. G.; Knudsen, J. B.; Reill, P. H. (eds). *Aufklärung und Geschichte: Studien zur deutschen Geschichtswissenschaft im 18. Jahrhundert*. 1986. Göttingen: Vandenhoeck & Ruprecht, 9-22.

Bödeker, H. E. and Herrmann, U. 1987. 'Über den Prozess der Aufklärung in Deutschland im 18. Jahrhundert: Personen, Institutionen und Medien.' In Bödeker, H. E. and Herrmann, U. (eds). *Über den Prozess der Aufklärung in Deutschland im 18. Jahrhundert: Personen, Institutionen und Medien*. Göttingen, 8-12.

Bödeker, H. E. and Hinrichs, E. 1999. *Alphabetisierung und Literalisierung in Deutschland in der Frühen Neuzeit*. Wolfenbütteler Studien Zur Aufklärung, volume 26. Tübingen: Niemeyer.

Boehm, L. 1978. 'Wissenschaft – Wissenschaften – Universitätsreform. Historie und theoretische Aspekte zur Verwissenschaftlichung von Wissen und zur Wissenschaftsorganisation in der frühen Neuzeit.' *Berichte zur Wissenschaftsgeschichte*, 1: 7-36.

Boehm, L. 1989. 'Die deutschen Universitäten im Sozialgefüge des absolutistischen Fürstenstaates. Zwischen scholastischer Tradition, normativer Wissenschaftsforschung, adeligen und bürgerlichen Bildungsansprüchen.' In Barner, W. (ed). *Tradition, Norm, Innovation. Soziales und literarisches Traditionsverhalten in der Frühzeit der deutschen Aufklärung*. München: Oldenbourg, 251-273.

Borinski, F. 1964. 'Gedike, Friedrich.' In Hockerts, G. (ed). *Neue Deutsche Biographie* 6 (1964), 125-126.
Available at: http://www.deutsche-biographie.de/pnd116478799.html
[Last accessed on 15 January 2013].

Borchmeyer, D. 1989. 'Kritik der Aufklärung im Geiste der Aufklärung: Friedrich Schiller.' In Schmidt, J. (ed). *Aufklärung und Gegenaufklärung in der europäischen Literatur, Philosophie und Politik von der Antike bis zur Gegenwart*. Darmstadt: Wissenschaftliche Buchgesellschaft, 361-376.

Bosse, H. 2008. 'Gelehrte und Gebildete – die Kinder des 1. Standes.' *Das achtzehnte Jahrhundert*, 32 (1): 13-37.

Bourdieu, P. [1972]1977. *Outline of a Theory of Practice*. Translated from the French by Richard Nice. Cambridge: Cambridge University Press.

Bourdieu, P. 2002. 'Les conditions sociales de la circulation internationale des idées [1989] *Actes de la recherche en science sociale*, 13(5): 3-8.

Bowen, M. 1981. *Empiricism And Geographical Thought. From Francis Bacon to Alexander von Humboldt.* Cambridge: Cambridge University Press.

Brecht, M. (ed). in collaboration with Friedhelm Ackva. 1995. *Der Pietismus im achtzehnten Jahrhundert*. Göttingen: Vandenhoeck and Ruprecht.

Brecht, M.; de Boor, F.; Dellsperger, R.; Gäbler, U.; Lehmann, H.; Sames, A.; Schneider, H; Sträter, U.; and Wallmann, J. (eds). 2006. *Pietismus und Neuzeit. Ein Jahrbuch zur Geschichte des neuern Protestantismus*. Band 32. Göttingen: Vandenhoeck & Ruprecht.

Benner, D. and Kemper, H. 2009. *Theorie und Geschichte der Reformpädagogik. Teil 1: Die pädagogische Bewegung von der Aufklärung bis zum Neuhumanismus*. Beltz Verlag: Weinheim und Basel.

Brewer, D. 2004. 'Lights in Space.' *Eighteenth-Century Studies*, 37(2): 171-186.

Broadie, A. 2003. 'Introduction.' In Broadie, A. (ed). *The Cambridge Companion to The Scottish Enlightenment.* Cambridge University Press, Cambridge, 1-8.

Broc, N. 1969. *Les montagnes vues par les géographes et les naturalistes de langue française au XVIIIe siècle*. Paris: Bibliothèque Nationale.

Broc, N. 1975. *La géographie des philosophes, géographes et voyageurs francais au XVIIIe siècle*. Paris: Éditions Ophrys.

Brückner, M. 1999. 'Lessons in Geography: Maps, Spellers, and Other Grammars of Nationalism in the Early Republic.' *American Quarterly*, 51(2): 311-343.

Brückner, M. 2006. *The Geographic Revolution in Early America: Maps, Literacy, and National Identity*. Chapel Hill: Published for the Omohundro Institute of Early American History and Culture by University of North Carolina Press.

Bruford, W. H. 1971. *Germany in the eighteenth century: the social background of the literary revival*. Cambridge: Cambridge University Press.

Brummack, J. 1989. 'Herders Polemik gegen die "Aufklärung".' In Schmidt, Jochen (ed). *Aufklärung und Gegenaufklärung in der europäischen Literatur, Philosophie und Politik von der Antike bis zur Gegenwart*. Darmstadt: Wissenschaftliche Buchgesellschaft, 277-293.

Brunning, J. 2005. 'Das Protestantische Gelehrtenschulwesen im 18. Jahrhundert: Pietismus – Aufklärung – Neuhumanismus.' In Hammerstein, N. and Herrmann, U. (eds). *Handbuch der deutschen Bildungsgeschichte. Band II. 18. Jahrhundert. Vom späten 17. Jahrhundert bis zur Neuordnung Deutschlands um 1800*. München: Beck, 278-323.

Bugliarello, G. 2003. 'A new Trivium and Quadrivium.' *Bulletin of Science, Technology and Society*, 23(2): 106-113.

Burke, P. and Hsia, R. P. 2007. *Cultural Translation in early modern Europe*. Cambridge: Cambridge University Press.

Büttner, M. 1979. 'The Significance of the Reformation for the Reorientation of Geography in Lutheran Germany.' *History of Science*, 17: 151-169.

Büttner, M. 1998. *Geographie und Theologie: zur Geschichte einer engen Beziehung*. Frankfurt am Main: Europäischer Verlag der Wissenschaften.

Callon, M. 1986. 'Some Elements of a Sociology of Translation: Domestication of the Scallops and the Fisherman of St Brieuc Bay'. In Law, J. (ed). *Power, Action and Belief: A New Sociology of Knowledge?* Sociological Review Monograph 32, London: Routledge.

Canizares-Esguerra, J. 2001. *How to Write the History of the New World: Histories, Epistemologies, and Identities in the Eighteenth-Century Atlantic World*. Stanford, CA: Stanford University Press.

Canizares-Esguerra, J. 2006. *Nature, Empire, and Nation: Explorations of the History of Science in the Iberian World*. Stanford, CA: Stanford University Press.

Carhart, M. C. 2007. *The Science of Culture in Enlightenment Germany*. Cambridge, MA: Harvard University Press Harvard University Press.

Casey, E. S. 1993. *Getting back into place: toward a renewed understanding of the place-world*. Bloomington: Indiana University Press.

Casey, E. S. 1997. *The Fate of Place: A Philosophical History*. Berkeley, CA; London: University of California Press.

Castells, M. 1996. *The Rise of the Network Society: Economy, Society, and Culture*. Oxford: Blackwell.

Carter, P. 1999 'Gaps in Knowledge: The Geography of Human Reason.' In Livingstone, D. N. and Withers, C. W. J. (eds). *Geography and Enlightenment*. London: University of Chicago Press, 295-318.

Carvalho dos Santos, M. H. 2003. 'As Luzes em Portugal.' In Schneiders, W. (ed). *The Enlightenment in Europe: Unity and Diversity. Les Lumières en Europe: Unité et Diversité. Aufklärung in Europa: Einheit und Vielfalt.* Berlin: Berliner Wissenschafts-Verlag, 97-104.

Chadwick, O. 1981. 'The Italian Enlightenment.' In Porter, R. and Teich, M. (eds). *The Enlightenment in National Context.* New York: Cambridge University Press, 90-105.

Church, M. 2011. 'Immanuel Kant and the Emergence of Modern Geography'. In Stuart, E. and Mendieta, E. (eds). *Reading Kant's Geography*. Albany: SUNY, 19-46.

Clark, W., Golinski, J. and Schaffer, S. (eds). 1999. *The Sciences in Enlightened Europe*. Chicago, London: The University of Chicago Press.

Collins, H. M. and Evans, R. 2002. 'The Third Wave of Science Studies: Studies of Expertise and Experience.' *Social Science Studies*, 32 (2): 235-296.

Conrad, S. 2002. 'Doppelte Marginalisierung. Plädoyer für eine transnationale Perspektive auf die deutsche Geschichte.' *Geschichte und Gesellschaft*, 28(1): 145-169.

Cook, T. and Schwartz, J. M. 2002. 'Archives, Records, and Power: From (Postmodern) Theory to (Archival) Performance.' *Archival Science*, 1(2): 171-185.

Cormack, L. B. 1997. *Charting an Empire: Geography at the English Universities 1580-1620*. Chicago and London: University of Chicago Press.

Crang, M. 2010. 'Time.' In Agnew, J. A. and Livingstone, D. N. (eds). *The SAGE Handbook of Geographical Knowledge*. London: SAGE, 331-343.

Dainat, H. and Vosskamp, W. (eds). 1999. *Aufklärungsforschung in Deutschland.* Heidelberg: Universitatsverlag C. Winter.

Dainville, F. de.1940. *La Géographie des humanistes.* Paris: Beauchesne et ses fils.

Dann, O. 1993. *Nation und Nationalismus in Deutschland 1770–1990*. C.H. Beck: München.

Darnton, R. 1979. *The Business of Enlightenment: A Publishing History of the Encyclopédie, 1775-1800*. Harvard: Harvard University Press.

Darnton, R. 1982. 'What is the History of Books?' *Daedalus*, 111(3): 65-83.

Darnton, R. 2003. 'The Case for the Enlightenment: George Washington's False Teeth.' In Darnton, R. and Wagner, M.M. (eds). *George Washington's False Teeth: An Unconventional Guide to the Eighteenth Century*. New York: W.W. Norton & Company Inc, 3-24.

Darnton, R. 2007. '"What is the history of the books?" revisited.' *Modern Intellectual History*, 4(3): 495-508.

Daston, L. 1991. 'The Ideal and Reality of the Republic of Letters in the Enlightenment.' *Science in Context*, 4 (2): 367-386.

Daston, L. 2004. 'Taking note(s).' *Isis*, 95(3): 443-448.

Dawson, D. and Morère, P. 2004. 'Introduction: A New Incarnation of the Auld Alliance: "Franco-Scottish Studies".' In Dawson, D. and Morère, P. (eds) *Scotland and France in the Enlightenment*. London: Bucknell University Press.

Dear, P. 2005. 'Space, Revolution, and Science.' In Livingstone, D. N. and Withers, C. W. J. (eds). *Geography and Revolution*. Chicago, London: The University of Chicago Press, 27-42.

Decker, U. 1990. 'Die Deutsche Encyclopaedie.' *Das achtzehnte Jahrhundert: Zeitschrift der Deutschen Gesellschaft für die Erforschung des Achtzehnten Jahrhunderts*, 2 (1 III): 147-151.

Denby, D. 2005. 'Herder: culture, anthropology and the Enlightenment.' *History of the Human Sciences,* 18 (1): 55-76.

Dinse, P. 1903. *Katalog der Bibliothek der Gesellschaft für Erdkunde zu Berlin. Versuch einer Systematik der geographischen Literatur*. Berlin: Ernst Siegfried Mittler und Sohn.

Donato, C. and Maniquis, R. M. (eds). 1992. *The Encyclopédie and the Age of Revolution*. Boston: Hall.

Döring, D. 2003. 'Die mitteldeutschen gelehrten Kollegien des 17. und frühen 18. Jahrhunderts als Vorläufer und Vorbilder der wissenschaftlichen Akademien.' In Zaunstöck, H. and Meumann, M. (eds). *Sozietäten, Netzwerke, Kommunikation: Neue Forschungen zur Vergesellschaftung im Jahrhundert der Aufklärung*. Tübingen: Niemeyer, 13-43.

Dorn, H. 1991. *Geography of Science*. Baltimore, MD: John Hopkins University Press.

Downes A. 1971. 'The Bibliographic Dinosaurs of Georgian Geography (1714-1830).' *Geographical Journal*, 137(3): 379-87.

Driver, F. 2001. *Geography Militant: Cultures of Exploration and Empire*. Oxford: Blackwell Publisher.

Dünne, J. and Günzel, S. (eds). 2006. *Raumtheorie: Grundlagentexte aus Philosphie und Kulturwissenschaften.* Frankfurt am Main: Suhrkamp Verlag.

Dukes, P. 1981. 'The Russian Enlightenment.' In Porter, R. and Teich, M. (eds). *The Enlightenment in National Context.* New York: Cambridge University Press, 1-18.

Dwyer, J. (1993 [1991]). 'Introduction – A "Peculiar Blessing": Social Converse in Scotland from Hutcheson to Burns In Dwyer, J. and Sher, R. B. (eds). *Sociability and Society in Eighteenth-Century Scotland*. Edinburgh: Mercat Press in association with the Eighteenth-Century Scottish Studies Society, 1-22.

Edney, M. H. 1997. *Mapping an empire: the geographical construction of British India, 1765-1843*. Chicago, London: University of Chicago Press.

Edney, M. H. 1999. 'Reconsidering Enlightenment Geography and Map Making: Reconnaissance, Mapping, Archive.' In Livingstone, D. N. and Withers, C. W. J. (eds). *Geography and Enlightenment*. Chicago, London: Chicago University Press, 165-198.

Elden, S. and Mendieta, E. (eds). 2011. *Reading Kant's Geography*. Albany: SUNY Press.

Elliot, P. 2000. 'The Birth of Public Science in the English Provinces: Natural Philosophy in Derby, c. 1690-1760.' *Annals of Science*, 57(1): 61-100.

Elliott, P. A. 2010. *Enlightenment, Modernity and Science: Geographies of Scientific Culture and Improvement in Georgian England*. London: I. B. Tauris.

Elliott, P. and Daniels, S. 2010. **'**'No study so agreeable to the youthful mind': geographical education in the Georgian grammar school.**'** *History of Education*, 39 (1): 15-33.

Emerson, R.L. 2002. 'How Not To Deal With Enlightenments.' *Historically Speaking*, 3(3): 5-7.

Emerson, R.L. and Wood, P. 2002. 'Science and Enlightenment in Glasgow, 1690-1802.' In Withers, C.W.J. and Wood, P. (eds). *Science and Medicine in the Scottish Enlightenment*. Phantassie: Tuckwell, 79-142.

Emerson, R.L. 2003. 'The Contexts of the Scottish Enlightenment.' In Boradie, A. (Ed) *The Cambridge Companion to The Scottish Enlightenment.* Cambridge: Cambridge University Press, 9-30.

Emundts, D. (ed). 2000. *Immanuel Kant und die Berliner Aufklärung*. Wiebaden: L. Reichert Verlag.

Engelhardt, U. 1981. 'Zum Begriff der Glückseligkeit in der kameralistischen Staatslehre des 18. Jahrhunderts (J. H. G. von Justi).' *Zeitschrift für historische Forschung*, 8: 37-79.

Espagne, M. 1994. 'Sur les limites du comparatisme en histoire culturelle.' *Genèses,* 17: 112-121.

Espagne, M. and Werner, M. 1988. *Transfers. Les Relations Interculturelles dans l'Espace Franco-Allemand (XVIIIe et XIXe sciècle).* Paris: Recherche sur les Civilisations.

Ethington, P. J. 2007. 'Placing the Past: "Groundwork" for a Spatial Theory of History.' *Rethinking History*, 11(4): 465-493.

Ezrahi, Y. 1990. *Descent of Icarus: Science and the Transformation of Contemporary Democracy*. Cambridge, MA: Harvard University Press.

Eulenburg, F. 1906 [1904]. *Die Frequnz der deutschen Universitäten von ihrer Gründung bis zur Gegenwart*. Leipzig: Teubner.

Fabian, B. 1976. 'English Books and Their Eighteenth-Century Readers.' In Korshin, P. (ed). *The Widening Circle: Essays on the Circulation of Literature in Eighteenth-Century Europe*. Philadelphia: University of Pennsylvania Press, 119-196.

Fabian, B. 1992. *The English book in eighteenth-century Germany*. London: British Library.

Fabian, B. 1994. *Selecta Anglicana. Buchgeschichtliche Studien zur Aufnahme der englischen Literatur in Deutschland im 18. Jahrhundert*. Schriften und Zeugnisse der Buchgeschichte (6). Wiesbaden: Harrassowitz.

Fängsmyr, T. 1981. 'The Enlightenment in Sweden.' In Porter, R. and Teich, M. (eds). *The Enlightenment in National Context.* New York: Cambridge University Press, 164-175.

Farinelli, F. 2000. 'Friedrich Ratzel and the nature of (political) geography.' *Political Geography*, 19(8): 943-955.

Feuerstein-Herz, P. 2004. PhD thesis. *Eberhard August Wilhelm von Zimmermann (1743-1815) und die Tiergeographie*. Braunschweig: Technische Universität Carolo-Wilhelmina zu Braunschweig.
Available at: http://rzbl04.biblio.etc.tu-bs.de:8080/docportal/servlets/MCRFileNodeServlet/DocPortal_derivate_00001647/Document.pdf?hosts=local&lang=en
[3 December 2011].

Feyerabend, P. 1978a. *Against Method: Outline of an Anarchistic Theory of Knowledge*. London: Verso.

Feyerabend, P. 1978b. *Science in a Free Society*. London: NLB.

Finkelstein, D. And McCleery, A. (eds). 2002. *The Book History Reader*. London and New York: Routledge.

Finnegan, D. A. 2008. 'The Spatial Turn: Geographical Approaches in the History of Science.' *Journal of the History of Biology*, 41(2): 369-388.

Fischer, E., Haefs, W. and Mix, Y.-G. 1999. 'Einleitung: Aufklärung, Öffentlichkeit und Medienkultur in Deutschland im 18. Jahrhundert.' In Fischer, E., Haefs, W. and Mix, Y.-G. (eds). *Von Almanach bis Zeitung. Ein Handbuch der Medien in Deutschland 1700-1800*. München: Beck, 9-23.

Förschler, S. and Hahne, N. 2013a. (eds). *Methoden der Aufklärung. Ordnungen der Wissensvermittlung und Erkenntnisgenerierung im langen 18. Jahrhundert*. München: Wilhelm Fink Verlag.

Förschler, S. and Hahne, N. 2013b. 'Das Methodenwissen der Aufklärung.' In Förschler, S. and Hahne, N. (eds). *Methoden der Aufklärung. Ordnungen der Wissensvermittlung und Erkenntnisgenerierung im langen 18. Jahrhundert*. München: Wilhelm Fink Verlag, 7-19.

Förstemann, E.1888. 'Reccard, Gotthilf Christian.' In Historische Kommission bei der Bayerischen Akademie der Wissenschaften (ed). *Allgemeine Deutsche Biographie*, 27 (1888), 490-492.
Available at: http://www.deutsche-biographie.de/pnd100245684.html?anchor=adb [Last accessed on 16 January 2013].

Förster, W. (eds). 1989. *Aufklärung in Berlin*. Berlin: Akademieverlag.

Foucault, M. 1974. *The Order of Things: An Archeaology of the Human Sciences*. London: Routledge.

Frazer, M. L. 2010. *The Enlightenment of sympathy: reflective sentimentalism in the eighteenth century and today*. Oxford: Oxford University Press.

Fromm, H. 1950-1953. *Bibliographie deutscher Übersetzungen aus dem Französischen 1700-1948*. Baden-Baden: Verlag für Kunst und Wissenschaft.

Fukuoka, Y. S. 2007. 'Konzept der "Teutschen Akademie" in Herders Idee zum ersten patriotischen Institut für den Allgemeingeist Deutschlands (1787)." In Kimura, N., and Moser v. Filseck, K. (eds). *Universalitätsanspruch und partikulare Wirklichkeiten: Natur- und Geisteswissenschaften im Dialog*. Würzburg: Königshausen & Neumann, 113-118.

Füssel, M. 2006. *Gelehrtenkultur als symbolische Praxis. Rang, Ritual und Konflikt an der Universität der Frühen Neuzeit*. Darmstadt: Wissenschaftliche Buchgesellschaft.

Galison, P. and Stump, D. (eds). 1996. *Disunity of Science: Boundaries, Context and Power*. Standorf, CA: Stanford University Press.

Galison, P. 1996. 'Introduction: The Context of Disunity.' In Galison, P. and Stump, D. (eds). 1996. *Disunity of Science: Boundaries, Context and Power*. Standorf, CA: Stanford University Press, 1-33.

Gay, P. 1966-1969. *The Enlightenment: An Interpretation*. 2 volumes. New York: Knopf.

Giesen, B. 1998. *Intellectuals and the German Nation*. Translated by Nicholas Levis and Amos Weisz. Cambridge: Cambridge University Press.

Giles, P. 2008. 'Enlightenment Historiography and Cultural Civil Wars' In Manning, S. and Cogliano, F. D. (eds). *The Atlantic Enlightenment*. Aldershot: Ashgate, 19-36.

Gilow, H. 1908. 'Schulz, Johann Michael Friedrich.' In Historische Kommission bei der Bayerischen Akademie der Wissenschaften (ed). *Allgemeine Deutsche Biographie*, 54 (1908), 257-258.
Available at: http://www.deutsche-biographie.de/pnd100402429.html?anchor=adb

[Last accessed on 15 January 2013].

Glacken, C. J. 1967. *Traces on the Rhodian Shore. Nature and Culture in Western Thought from Ancient Times to the End of the Eighteenth Century*. Berkeley, London: University of California Press University of California Press.

Godlewska, A. and Smith, N. 1994. *Geography and Empire*. Oxford: Blackwell.

Godlewska, A. 1999. *Geography unbound: French geographic science from Cassini to Humboldt.* Chicago, London: University of Chicago Press.

Goethschel, W., Macleod, C., and Snyder, E. 1992. 'The Deutsche Encyclopädie and encyclopedism in eighteenth-century Germany.' In Donato, C. and Maniquis, R. M. (eds). *The Encyclopédie and the Age of Revolution*. Boston: Hall.

Götz, C. 2008. *Friedrich Heinrich Jacobi im Kontext der Aufklärung. Diskurse zwischen Philosophie, Medizin und Literatur*. Hamburg: Felix Meiner Verlag.

Gordon, D. 2003. 'Sociability.' In Kors, A. C. (ed). *Encyclopedia of the Enlightenment*. Oxford: Oxford University Press, 96-104.

Gregson, N. 2003. 'Discipline games, disciplinary games and the need for a post-disciplinary practice: responses to Nigel Thrift's 'The future of geography.' *Geoforum*, 34 (1): 5-7.

Griep, W. 1999. 'Geographische Zeitschriften und Reisejournale.' In Fischer, E., Haefs, W. and Mix, Y.-G. (eds) *Von Almanach bis Zeitung. Ein Handbuch der Medien in Deutschland 1700-1800*. München: Beck, 62-70.

Gruber, C. 1900. *Die Entwicklung der geographischen Lehrmethoden im XVIII. und XIX. Jahrhundert. Rückblicke und Ausblicke*. München and Leipzig: Oldenbourg.

Günther, D. 1903. 'Geographischer Unterricht an einer deutschen Hochschule des achtzehnten Jahrhunderts.' *Mitteilungen der Gesellschaft für deutsche Erziehungs- und Schulgeschichte*, 13(4): 244-260.

Günzel, S. 2004. 'Geographie der Aufklärung. Klimapolitik von Montesquieu zu Kant.' (Teil 1/part 1). *Aufklärung und Kritik*, 22: 66-91.

Günzel, S. 2005. 'Geographie der Aufklärung. Klimapolitik von Montesquieu zu Kant (Teil 2).' *Aufklärung und Kritik. Zeitschrift für freies Denken und humanistische Philosophie*, 12 (23): 122-144.

Günzel, S. (ed). 2009. *Raumwissenschaften*. Frankfurt am Main: Suhrkamp.

Guyer, P. 2007. '18th Century German Aesthetics.' *Stanford Encyclopedia of Philosophy*. [online] (last updated on 16 January 2007).

Available at: http://plato.stanford.edu/entries/aesthetics-18th-german/
[Last accessed on 17 January 2013].

Haakonssen, K. 1990. 'Enlightenment philosophy in Scotland and Germany: recent German scholarship.' In Eibl, K. (ed). *Entwicklungsschwellen im 18. Jahrhundert*, *Aufklärung* 4(1).

Habermas, J. 1972 [1968]. *Knowledge and Human Interest*. Translated by Jeremy J. Shapiro. London: Heinemann.

Habermas, J. 1989. *The Structural Transformation of the Public Sphere: An Inquiry into a Category of Bourgeois Society*. Cambridge: Polity Press.

Hacking, I. 1996. 'The Disunity of Science.' In Galison, P. and Stump, D. (eds) 1996. *Disunity of Science: Boundaries, Context and Power*. Standorf, CA: Stanford University Press, 37-74.

Hampson, N. 1981.'The Enlightenment in France.' In Porter, R. and Teich, M. (eds) *The Enlightenment in National Context.* New York: Cambridge University Press, 41-53.

Hammermayer, L. 1976. 'Akademiebewegung und Wissenschaftsorganisation während der zweiten Hälfte des 18. Jahrhunderts.' In Amburger, E.; Ciesla, M.; and Sziklay, L. (eds) *Wissenschaftspolitik in Mittel- und Osteuropa. Akademien und Hochschulen im 18. und beginnenden 19. Jahrhundert*. Berlin: Ulrich Camen, 1-84.

Hammerstein, N. 1985. 'Zur Geschichte der Universitäten im Heiligen Römischen Reich Deutscher Nation.' *Historische Zeitschrift*, 241(2): 287-328.

Hammerstein, N. 1989. 'Der Wandel der Wissenschafts-Hierarchie und das bürgerliche Selbstbewußtsein. Anmerkungen zur aufgeklärten Universitätslandschaft.' In Wilfried Barner, W. and Müller-Lückner, E. (eds). *Tradition, Norm, Innovation. Soziales und literarisches Traditionsverhalten in der frühen Neuzeit der deutschen Aufklärung*. Munich: Oldenbourg Verlag, 277-291.

Hammerstein, N. 2000. *Res publica litteraria. Ausgewählte Aufsätze zur frühneuzeitlichen Bildungs-, Wissenschafts- und Universitätsgeschichte*. Berlin: Duncker & Humblot.

Hammerstein, N. 2005. 'Universitäten.' In Hammerstein, N. and Herrmann, U. (eds). 2005. *Handbuch der deutschen Bildungsgeschichte. Band II. 18. Jahrhundert. Vom späten 17. Jahrhundert bis zur Neuordnung Deutschlands um 1800*. München: Beck, 369-400.

Hammerstein, N. and Herrmann, U. (eds). 2005. *Handbuch der deutschen Bildungsgeschichte. Band II. 18. Jahrhundert. Vom späten 17. Jahrhundert bis zur Neuordnung Deutschlands um 1800*. München: Beck.

Haraway, D. 1988. 'Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective.' *Feminist Studies*, 14(3): 575-599. Reprinted in Haraway, D. 1991. *Simians, Cyborgs and Women: the Reinvention of Nature*. London: Free Association Press, 183-201.

Hardach-Pinke 1992. 'Weibliche Bildung und weiblicher Beruf.' *Geschichte und Gesellschaft* 18: 507-525.

Hardtwig, W. 1982. 'Die Verwissenschaftlichung der Geschichtsschreibung und die Ästhetisierung der Darstellung.' In Koseleck, R.; Lutz, H.; and Rüsen, J. (eds). *Formen der Geschichtsschreibung*. München: Deutscher Taschenbuch-Verlag, 147-191.

Hardtwig, W. 1990. *Geschichtskultur und Wissenschaft*. München: Deutscher Taschenbuch-Verlag.

Harris, S. 1998. 'Long Distance Corporations, Big Sciences, and the Geography of Knowledge.' *Configurations*, 6: 269-305.

Harris, S. 2006. 'Networks of travel, correspondence, and exchange. In Park, K. and Daston, L. (eds). *The Cambridge History of Science, Volume 3: early modern science*. Cambridge: Cambridge University Press, 341-362.

Hartmann, P. C. 2001. *Kulturgeschichte des Heiligen Römischen Reiches : 1648 bis 1806. Verfassung, Religion und Kultur*. Wien, Köln, Weimar: Böhlau

Hassert, K. 1932. *Einführung in die geographische Literatur. Ein Wegweiser für Anfänger*. Dresden: Verlag von Zahn & Jaensch.

Hausmann, F.-R. and Kapp, V. 1992. *Bibliographie der deutschen Übersetzungen aus dem Italienischen von den Anfängen bis zur Gegenwart*. Tübingen: Niemeyer.

Heffernan, M. 1994. On geography and progress: Turgot's *Plan d'un ouvrage sur la géographie* politique (1751) and the origins of modern progressive thought.' *Political Geography*, 13(4): 328-343.

Heffernan, M. 1999. 'Historical Geographies of the Future: Three Perspectives from France, 1750-1825.' In Livingstone, D. N. and Withers, C. W. J. (eds). *Geography and Enlightenment*. Chicago, London: Chicago University Press, 125-164.

Heffernan, M. 2003. 'Histories in Geography' In Clifford, N., Holloway, S. L., Valentine, G. (eds). *Key Concepts in Geography*. London: Sage, 3-20.

Heffernan, M. 2005. 'Edme Mentelle's Geographies and the French Revolution.' In Livingstone, D. N. and Withers, C. W. J. (eds). *Geography and Revolution*. Chicago, London: The University of Chicago Press, 273-303.

Heidemann, S. 2008. 'Der Paradigmenwechsel in der Jenaer Orientalistik in der Zeit der literarischen Klassik.' Goer, C. and Hofmann, M. (eds). *Der Deutschen Morgenland. Bilder des Orients in der deutschen Literatur und Kultur von 1770 bis 1850*. München: Wilhelm Fink, 243-257.

Heller, F. H. 1884. *Die Handelswege Inner-Deutschlands im 16., 17. und 18. Jahrhundert und ihre Beziehungen zu Leipzig*. Dresden: Wilhelm Baensch Verlagshandlung.

Hellmuth, E. 1990. 'Towards a Comparative Study of Political Culture: The Cases of Late Eighteenth-Century England and Germany.' In Hellmuth, E. (ed). *The Transformation of Political Culture: England and Germany in the Late Eighteenth Century*. Oxford: Oxford University Press [for] the German Historical Institute, 1-36.

Hellmuth, E. and Pieroth, N. 2002 'Germany 1760-1815.' In Barker, H. and Burrows, S. (eds). *Press, politics and the public sphere in Europe and North America, 1760-1820*. Cambridge: Cambridge University Press, 69-92.

Helms, G. Lossau, J. and Oslendert, U. 2005. '*Einfach sprachlos* but not simply speechless: language(s), thought and practice in the social sciences.' *Area*, 37(3): 242-250.

Hentschel, U. 1999. *Studien zur Reiseliteratur am Ausgang des 18. Jahrhunderts*. Frankfurt: Peter Lang.

Herrmann, U. 1982. 'Über "bürgerliche Erziehung" in Frankreich und Deutschland im 18. Jahrhundert.' *Paedagogica Historica: International Journal of the History of Education*, 22 (1-2): 29-50.

Herrmann, U. 2005. 'Pädagogisches Denken.' In Hammerstein, N. and Herrmann, U. (eds). *Handbuch der deutschen Bildungsgeschichte. Band II. 18. Jahrhundert. Vom späten 17. Jahrhundert bis zur Neuordnung Deutschlands um 1800*. München: Beck, 97-133.

Hesse, C. 2007. 'Toward a New Topography of Enlightenment.' *European Review of History: Review europeenne d'histoire*, 13(3): 499-508.

Hettner, A. 1927. *Die Geographie, ihre Geschichte, ihr Wesen und ihre Methoden*. Breslau: Ferdinand Hirt.

Hillier, B. and Penn, A. 1991. 'Visible colleges: structure and randomness in place of discovery.' *Science in Context*, 4(1): 23-49.

Hoerder, D. 2006. 'Transkulturelle Gesellschaftsstudien – transcultural societal studies.' *Sozial Geschichte*, 21(1): 68-78.

Hoffmann, P. 2000. *Anton Friedrich Büsching. Ein Leben im Zeitalter der Aufklärung*. Berlin: Verlag A. Spitz.

Hoheisel, K. 1979. 'Immanuel Kant und die Konzeption der Geographie am Ende des 18. Jahrhunderts.' In Büttner, M. (ed). *Wandlungen im geographischen Denken von Aristoteles bis Kant*. Paderborn: Abhandlungen und Quellen zur Geschichte der Geographie und Kosmologie.

Hohmann, J. 1959. 'Geographische Zeitschriften des 18. Jahrhunderts. Ein Beitrag zur Geschichte deutscher geographischer Periodika.' *Erdkunde. Archiv für Wissenschaftliche Geographie*, 13(1/4) 455-463.

Holcomb, K. 1991. 'A Dance in the Mind: The Provincial Scottish Philosophical Societies.' *Studies in Eighteenth-Century Culture*, 21: 89-100.

Hubbard, P. and Kitchin R. (eds). 2011. *Key Thinkers on Space and Place*. 2nd edition. London: Sage.

Hübner, R. 1953. 'Die Schulgeographie. Geschichtliche Entwicklung.' In Banse, E. (ed). *Entwicklung und Aufgabe der Geographie*. Wien Humboldt-Verlag Wien, 208-233.

ImHof, U. 1970. *Aufklärung in der Schweiz*. Bern: A. Franke Verlag.

Israel, J. 2001. *Radical Enlightenment: Philosophy and the Making of Modernity, 1650-1750*. Oxford; New York: Oxford University Press.

Israel, J. 2006. *Enlightenment Contested: Philosophy, Modernity, and the Emancipation of Man 1670-1752*. Oxford; New York: Oxford University Press.

Israel, J. 2011. *Democratic Enlightenment: Philosophy, Revolution, and Human Rights, 1750-1790*. Oxford; New York: Oxford University Press.

Jäger, H.-W. 1969. 'Herder, Johann Gottfried.' In Hockerts, G. (ed). *Neue Deutsche Biographie* 8 (1969), 595-603.
Available at: http://www.deutsche-biographie.de/pnd118549553.html
[Last accessed on 15 January 2013].

Jankovic, V. 2000. 'The Place of Nature and the Nature of Place: The Chorographic Challenge to the History of British Provincial Sciene.' *History of Science*, 38(1): 79-113.

Jarausch, K. H. 1986. 'The Institutionalization of History in 18th-Century Germany.' In Bödeker, Hans Erich; Iggers, Georg G.; Knudsen, Jonathan B.; Reill, Peter H.

(eds). *Aufklärung und Geschichte: Studien zur deutschen Geschichtswissenschaft im 18. Jahrhundert*. 1986. Göttingen: Vandenhoeck & Ruprecht, 25-48.

Jasanoff, S. 2003. 'Breaking the Waves in Science Studies: Comment on H.M. Collins and Robert Evans, 'The Third Wave of Science Studies'.' *Social Studies of Science*, 33 (3): 389-400.

Johns, A. 1998. *The Nature of the Book. Print and Knowledge in the Making*. Chicago: Chicago University Press.

Johnston, R. 2003. 'Geography: a different sort of discipline.' *Transactions of the Institute of British Geographers*, 28(2):131-141.

Jöns, H. 2007. 'Transnational mobility and the spaces of knowledge production: a comparison of global patterns, motivations and collaborations in different academic fields.' *Social Geography*, 2: 97-114.

Jöns. H. 2008. Academic travel from Cambridge University and the formation of centres of knowledge, 1885-1954.' *Journal of Historical Geography*, 34(2): 338-362.

Jöns, H. 2010. 'Centre of calculation.' In Agnew, J. A. and Livingstone, D. N. (eds). *The SAGE Handbook of Geographical Knowledge*. London: SAGE, 156-168.

Jöns, H., Livingstone, D. N., and Meusberger, P. 2010. 'Interdisciplinary Geographies of Science.' In Jöns, H., Livingstone, D. N., and Meusberger, P. (eds). *Geographies of Science*. Heidelberg: Springer, ix-xvii.

Jordan, L. and Kortländer, B. 1995. *Nationale Grenzen und internationaler Austausch. Studien zum Kultur- und Wissenschaftstransfer in Europa*. Tübingen: Max Niemeyer Verlag.

Jorgensen, S. A. 2003. 'Aufklärung in Dänemark.' Schneiders, W. (ed). 2003a. *The Enlightenment in Europe: Unity and Diversity. Les Lumières en Europe: Unité et Diversité. Aufklärung in Europa: Einheit und Vielfalt.* Berlin: Berliner Wissenschafts-Verlag, 105-114.

Kämmel, H. J. 1881. 'Hübner, Johann.' In Historische Kommission bei der Bayerischen Akademie der Wissenschaften (ed). *Allgemeine Deutsche Biographie*, Band 13 (1881), 267–269.
Available at:
http://de.wikisource.org/w/index.php?title=ADB:H%C3%BCbner,_Johann&oldid=1691568
[Last accessed on 16 January 2013].

Kayser, C. G. 1834-1912. *Vollständiges Bücher-Lexicon. Ein Verzeichnis der seit dem Jahre 1750 im deutschen Buchhandel erschienenen Bücher und Landkarten*. Leipzig: Weigel.

Keighren, I. 2006. 'Bringing geography to the book: charting the reception of *Influences of geographic environment*.' *Transactions of the Institute of British Geographers*, 31(4): 525-540.

Keighren, I. 2010. *Bringing Geography to the Book: Ellen Semple and the Reception of Geographical Knowledge*. London: I. B. Tauris.

Kelchner, E. 1987. 'Dassel, Christian Konrad Jakob.' In Historische Kommission bei der Bayerischen Akademie der Wissenschaften (ed). *Allgemeine Deutsche Biographie*, Band 4, 760–761.
Available at:
http://de.wikisource.org/w/index.php?title=ADB:Dassel,_Christian_Konrad_Jakob&oldid=1731692
[last accessed on 15 January 2013].

Keller, T. 2006. 'Kulturtransferforschung: Grenzgänge zwischen den Kulturen.' In Moebius, S. and Quadflieg, D. (eds). *Kulturtheorien der Gegenwart – Heterotopien der Theorie*. Wiesbaden: Verlag für Sozialwissenschaften, 101-114.

Kelley, D. R. and Popkin, R. H. (eds). 1991. *The Shapes of Knowledge from the Renaissance to the Enlightenment*. Dordrecht; London: Kluwer Academic Publishers.

Kennedy, M. 2003. 'The Enlightenment in Ireland.' Schneiders, W. (ed). 2003a. *The Enlightenment in Europe: Unity and Diversity. Les Lumières en Europe: Unité et Diversité. Aufklärung in Europa: Einheit und Vielfalt.* Berlin: Berliner Wissenschafts-Verlag, 149-163.

Kerscher, J. 2013. 'Konkurrierendes Bildungswissen in Karl Philipp Moritz, *Anton Reiser*: Pädagogik, Epigeneselehre, Poetik.' In Förschler, S. and Hahne, N. (eds). *Methoden der Aufklärung. Ordnungen der Wissensvermittlung und Erkenntnisgenerierung im langen 18. Jahrhundert*. München: Wilhelm Fink Verlag, 133-145.

Kinzel, T. 2009. *Review of Willenberg 2008*. Konstanz: Bibliotheksservice-Zentrum Baden-Württemberg.
Available at: http://swbplus.bsz-bw.de/bsz267592132rez.htm [23 February 2011].

Kirchner, J. 1928-1931. *Die Grundlagen des deutschen Zeitschriftenwesens*. Leipzig: Verlag Karl. W. Hiersemann.

Kitchen, R. 2000. *Conducting Research in Human Heography: Theory, Methodology and Practice*. Harlow: Prentice Hall.

Klemme, H. F. (ed). 2000. *Reception of the Scottish Enlightenment in Germany: Six Significant translations.* Bristol: Thoemmes, *1755-1782*.

Klemun, M. 2006. ‘Globaler Pflanzentransfer und seine Transferinstanzen als Kultur-, Wissens- und Wissenschaftstransfer der frühen Neuzeit.’ *Berichte zur Wissenschaftsgeschichte* 29: 199–218.

Klippel, D. 1990. ‘The True Concept of Liberty.’ In Hellmuth, E. (ed). *The Transformation of Political Culture: England and Germany in the Late Eighteenth Century*. Oxford: Oxford University Press [for] the German Historical Institute, 447-466.

Knedlik, M. and Schrott, G. (eds). 1999. *Anselm Desing (1699 - 1772): ein benediktinischer Universalgelehrter im Zeitalter der Aufklärung*. Kallmünz: Laßleben.

Knorr-Cetina, K. 1999. *Epistemic cultures: how the scientists make knowledge*. Cambridge, MA: Harvard University Press.

Konrad, F.-M. 2007. *Geschichte der Schule. Von der Antike bis zur Gegenwart*. München: Beck.

Kontler, L. 1991. ‘Enlightenment, Aufklärung and Conservatism: Reflections on the Reception of British Enlightenment and Early British Conservatism in Central Europe.’ *Studies on Voltaire and the Eighteenth Century*, 303: 514-519.

Kontler, L. 2001. ‘William Robertson and his German Audience on European and non-European Civilisations.’ *The Scottish Historical Review*, volume LXXX, 1 (209, April): 63-89.

Kortländer, B. 1995. ‘Begrenzung – Entgrenzung. Kultur- und Wissenschaftstransfer in Europa.’ In Jordan, L. and Kortländer, B. (eds) *Nationale Grenzen und internationaler Austausch. Studien zum Kultur- und Wissenschaftstransfer in Europa*. Tübingen. Max Niemeyer Verlag, 1-19.

Kors, A. C. (ed. in chief). 2003. *Encyclopedia of the Enlightenment*. Four volumes. Oxford: Oxford University Press.

Koselleck, R. 1975. ‘Fortschritt.’ In Brunner, O. Conze, W. and Koselleck, R. (eds). *Geschichtliche Grundbegriffe. Historisches Lexikon zur politisch-sozialen Spache in Deutschland*. Stuttgart: Ernst Klett Verlag, 351-423.

Koselleck, R. 1985. ‘Fortschritt und Beschleunigung. Zur Utopie der Aufklärung.’ In: mit Beiträgen von Günter Grass, Horst Günther, Dieter Hildebrandt, Henning Ritter, Wolf Lepenies, Reinhart Koselleck, Hartmut von Hentig, Odo Marquard, Lothar Baier, Margarete Mitscherlich, Urs Jaeggi, Erwin Chargaff, Jan Robert Bloch, Oskar Negt, Christian Graf von Krockow, Horst Baier, Bernhard Lypp (eds). *Der Traum der Vernunft: vom Elend der Aufklärung: eine Veranstaltungsreihe der Akademie der Künste*. Band/Volume 1. Darmstadt/Neuwied: Luchterhand, 75-103.

Koselleck, R. 2002. *The Practice of Conceptual History: Timing History, Spacing Concepts*. Stanford: Stanford University Press.

Kraus, A. 1963. *Vernunft und Geschichte: die Bedeutung der deutschen Akademien für die Entwicklung der Geschichtswissenschaft im späten 18. Jahrhundert*. Freiburg: Herder.

Kremer, B. M. 1989. *Der Westfälische Friede in der Deutung der Aufklärung: zur Entwicklung des Verfassungsverständnisses im Hl. Röm. Reich Deutscher Nation vom Konfessionellen Zeitalter bis ins späte 18. Jahrhundert*.. Mohr: Tübingen.

Kremer, J. 1991. 'Schulische Musikpflege im Zeichen pädagogischer Neuorientierung. Zur Musik and der Gelehrtenschule Hamburgs im 18. Jahrhundert.' *Archiv für Musikwissenschaft*, 48(2): 126-152.

Kronick, D. A. 1962. *A History of Scientific and Technical Periodicals. The Origins and Development of the Scientific and Technological Press 1665-1790*. New York: Scarecrow Press.

Kučera, Z .2008. 'Historical geography between geography and historiography'. *Klaudyán: Internet Journal of Historical Geography and Environmental History*, 5(1): 5-13.

Kühn, A. 1939. *Die Neugestaltung der deutschen Geographie im 18. Jahrhundert. Ein Beitrag zur Geschichte der Geographie an der Georgia Augusta zu Göttingen*. Leipzig: Quellen und Forschungen zur Geschichte der Geographie und Völkerkunde.

Kuhn, T. S. 1962. *The Structure of Scientific Revolutions*. Chicago: The University of Chicago Press.

Kuhn, T. S. 1970. *The Structure of Scientific Revolutions*. Second edition. Chicago: University of Chicago Press.

Kuhn, T. S. 1974. 'Second Thoughts on Paradigms.' In Suppe, F. (ed). *The Structure of Scientific Theories*. Urbana, London: Illinois University Press, 459-482.

Kutter, U. 1996. *Reisen- Reisehandbücher-Wissenschaft. Materialien zur Reisekultur im 18. Jahrhundert.* Neuried: Verlagsgesellschaft mbH.

Larson, J. 1986. 'Not without a plan: Geography and Natural History in the Late Eighteenth Century.' *Journal for the History of Biology*, 19 (3): 447-488.

Latour, B. 1987. *Sciene in Action: How to Follow Scientists and Engineers through Society*. Cambridge, MA: Harvard University Press.

Latour, B. 1999. ‘Circulating Reference: Sampling the soil in the Amazon forest.’ In *Pandora’s hope: essays on the reality of science studies*. London & Cambridge, MA: Harvard University Press.

Latour, B. and Woolgar, S. 1986. *Laboratory Life: The Construction of Scientific Facts* (Second edition). Princeton, N. J.; Chichester: Princeton University Press.

Law, J. (ed). 1986. *Power, Action and Belief: A New Sociology of Knowledge?*, Sociological Review Monograph 32, London: Routledge.

Law, J. 2009. ‘Actor-Network Theory and Material Semiotics’. In Turner, B.S. (ed). *The new Blackwell Companion to Social Theory*. Malden, Mass.: Wiley-Blackwell.

Lefèbvre, H. 1991. *The Production of Space*. Translated by D Nicholson Smith. Oxford and Cambridge, MA: Blackwell.

Leitner, H. and Miller, B. 2007. ‘Scale and the limitations of ontological debate: a commentary on Marston, Jones and Woodward.’ *Transactions of the Institute of British Geographers*, 32(1): 116-125.

Lepenies, W. 1988. *Autoren und Wissenschaftler im 18. Jahrhundert: Linné, Buffon, Winckelmann, Georg Forster, Erasmus Darwin*. München: Hanser.

Liebmann, O. 1894. ‘Sulzer, Johann Georg.’ In Historischen Kommission bei der Bayerischen Akademie der Wissenschaften (ed). *Allgemeine Deutsche Biographie*, Band 37 (1894): 144–147.
Available at:
http://de.wikisource.org/w/index.php?title=ADB:Sulzer,_Johann_Georg&oldid=1865048
[Last accessed on 22 January 2013].

Livingstone, D. N. 1984. ‘The History of Science and the History of Geography: Interactions and Implications.’ *History of Science*, 22: 271-302.

Livingstone, D. N. 1992. *The Geographical Tradition: Episodes in the History of a Contested Enterprise.* Oxford: Blackwell.

Livingstone, D. N. 1994. ‘Science and religion: foreword to the historical geography of an encounter.’ *Journal of Historical Geography*, 20 (4), 367-383.

Livingstone, D. N. 1995a. ‘The spaces of knowledge: contributions towards a historical geography of science.’ *Environment and Planning D: Society and Space,* 13: 5-34.

Livingstone, D. N. 1995b. ‘Geographical traditions.’ *Transactions of the Institute of British Geographers*, 20 (4): 420-422.

Livingstone, D. N. 2002. *Science, space and hermeneutics. Hettner-Lectures 5 (2001)*. Heidelberg: Department of Geography, University of Heidelberg.

Livingstone, D. N. 2003a. *Putting Science into Practice: Geographies of Scientific Knowledge*. Chicago: The University of Chicago Press.

Livingstone, D. N. 2003b. 'Science, Religion, and the geography of reading: Sir William Whitla and the editorial staging of Isaac Newton's writings on biblical prophecy.' *British Journal for the History of Science*, 36: 27-42.

Livingstone, D. N. 2005a. 'Text, talk and testimony: geographical reflections on scientific habits. An afterword.' *British Society for the History of Science*, 38(1): 93-100.

Livingstone, D. N. 2005b. 'Science, Text and Space: Thoughts on the geography of reading.' *Transactions of the Institute of British Geographers*, 30: 391-401.

Livingstone, D. N. 2010. 'Landscapes of Knowledge.' In Meusburger, P., Livingstone, D.N., and Jöns, H. (eds). *Geographies of Science*. Heidelberg: Springer, 3-22.

Livingstone, D.N. 2011. 'Politics, Culture, and Human Origins: Geographies of Reading and Reputation in Nineteenth-Century Science.' In Livingstone, D. N. and Withers, C. W. J. (eds). *Geographies of Nineteenth-Century Science*. Chicago and London: The University of Chicago Press, 178-201.

Livingstone, D.L. and Withers, C. W. J. 1999a. *Geography and Enlightenment*. Chicago: University of Chicago Press.

Livingstone, D. N. and Withers, C. W. J. 1999b. 'Introduction: On Geography and Enlightenment.' In Livingstone, D. N. and Withers, C. W. J. (eds). *Geography and Enlightenment*. Chicago, London: Chicago University Press, 1-31.

Loewenberg, J. 1877. 'Fabri, Joh. Ernst.' In Historische Kommission bei der Bayerischen Akademie der Wissenschaften (ed). *Allgemeine Deutsche Biographie*, Band 6 (1877), 499–501.
Available at:
http://de.wikisource.org/w/index.php?title=ADB:Fabri,_Johann_Ernst&oldid=1798154
[Last accessed on 15 January 2013].

Lorimer, H., and Spedding, N. 'Locating Field Science: A Geographical Family Expedition to Glen Roy, Scotland.' *The British Journal of for the History of Science*, 38(1): 13-33.

Lowood, H. 1991. *Patriotism, Profit and the Promotion of Science in the German Enlightenment.* New York: Garland Publications.

Lubar, S. 1999. 'Information Culture and the Archival Record.' *The American Archivist*, 62(1): 10-22.

Lüdde, J. G. 1842. *Die Methodik der Erdkunde oder Anleitung die Fortschritte der Wissenschaft der Erdkunde in den Schul- und akademischen Unterricht leichter und wirklich einzufügen*. Magdeburg, Emil Baensch.

Lüdde, J. G. 1849. *Die Geschichte der Methodologie der Erdkunde in ihrer ersten Grundlage, vermittelst einer historisch-kritischen Zusammenstellung der Literatur der Methodogie der Erdkunde*. Leipzig: C. Hinrich.

Lüsebrink, H.-J. and Reichardt, R. 1994. 'Histoire des concepts et transferts culturels, 1770-1815. Note sur une recherche.' Genèses, 14: 27-41.

Lutz, G. 1980. 'Geographie und Statistik im 18. Jahrhundert. Zu Neugliederung und Inhalten von "Fächern" im Bereich der historischen Wissenschaften.' In Rassem, M. And Stagl, J. (eds). *Statistik und Staatsbeschreibung in der Neuzeit vornehmlich im 16.-18. Jahrhundert*. Paderborn, München, Wien, Zürich: Ferdinand Schöningh, 249-268.

Lux, D. S. and Cook, H. J. 1998. 'Closed circles or open networks?: Communicating at a distance during the scientific revolution.' *History of Science*, 36: 179-211.

MacIntyre, A. 1981. *After virtue: a study in Moral Theory*. London: Duckworth.

Malpas, J. and Theil, K. 2011. 'Kant's Geography of Reason.' In Elden, S. and Mendieta, E. (eds). *Reading Kant's Geography*. Albany: SUNY Press, 195-214.

Manning, S. and Cogliano, F. D. (eds). 2008a. *The Atlantic Enlightenment*. Aldershot: Ashgate.

Manning, S. and Cogliano, F. D. 2008b. 'Introduction.' In Manning, S. and Cogliano, F. D. (eds). *The Atlantic Enlightenment*. Aldershot: Ashgate, 1-18.

Manz, S., Schulte Beerbühl, M., and Davis, J. R. 2007. 'Introduction. Towards an Anglo-German Histoire Croisée, Migrants, Transfers and Cross-national Entanglements.' In Manz, S., Schulte Beerbühl, M., and J. R. Davis (eds). *Migration and Transfer from Germany to Britain 1660-1914*. München: Saur, 9-18.

Marcuzzi, M. 2011. 'Writing Space: Historical Narrative and Geographical Description in Kant's *Physical Geography*'. In Elden, S. and Mendieta, E. (eds). *Reading Kant's Geography*. Albany: SUNY Press, 115-136.

Marston, S. A. 2000 'The social construction of scale.' *Progress in Human Geography*, 24 (2): 219-242.

Marston, S. A., Jones III, J. P., Woodward, K. 2005. 'Human geography without scale.' *Transactions of the Institute of British Geographers*, 30(4): 416-432.

Martin, G. J. and James, P. E. 1981. *All Possible Worlds: A History of Geographical Ideas*. New York: Wiley.

May, J. A. 1970. *Kant's Concept of Geography and its Relation to Recent Geographical Thought*. Toronto: University of Toronto Press.

Mayhew, R. J. 1998a. The character of English geography, c. 1660-1800: a textual approach.' *Journal of Historical Geography*, 24(4): 385-412.

Mayhew, R. J. 1998b. 'Geography in Eighteenth-Century British Education.' *Paedagogica Historica*, 34(3): 731-769.

Mayhew, R. 2000. *Enlightenment Geography. The Political Language of British Geography, 1650-1850*. Basingstoke: Macmillan.

Mayhew, R. 2001. 'The effacement of early modern geography (c.1600–1850): a historiographical essay.' *Progress in Human Geography*, 25(3): 383-401.

Mayhew, R. 2004. 'Geography books and the character of Georgian Politics' In Ogborn, M. and Withers, C. W. J. (eds). *Georgian Geographies. Essays on space, place and landscape in the eighteenth century*. Manchester and New York: Manchester University Press, 193-211.

Mayhew, R. 2005a. 'Mapping science's imagined community: geography as a Republic of Letters, 1600-1800.' *British Journal for the History of Science*, 38(1): 73-92.

Mayhew, R. 2005b. 'Geography's English Revolutions. Oxford Geography and the War of Ideas, 1600-1660.' In Livingstone, D. N. and Withers, C. J. W. (eds). *Geography and Revolution*. Chicago: University of Chicago Press, 243-272.

Mayhew, R. 2007. 'Materialist hermeneutics, textuality and the history of geography: print spaces in British geography, c. 1500 – 1900.' *Journal of Historical Geography,* 33(3): 466-488.

Mayhew, R. 2009. 'Historical geography, 2007-2008: Foucault's avatars – still in (the) Driver's seat.' *Progress in Human Geography*, 33(3): 387-397.

Mayhew, R. 2010a. 'Printing posterity: Editing Varenius and the construction of geography's history.' In Ogborn, M. and Withers, C. J. W. (eds). *Geography of the Book*. Aldershot: Ashgate, 157-187.

Mayhew, R. 2010b. 'Geography as the Eye of Enlightenment Historiography.' *Modern Intellectual History*, 7(3): 611-627.

Mayhew, R. 2011. 'Historical geography, 2009-2010: Geohistoriography, the forgotten Braudel and the place of nominalism.' *Progress in Human Geography*, 35(3): 409-421.

Mayhew, R. 2012. 'Border traffic: recent exchanges between historical geography and intellectual history.' *Journal of Historical Geography*, 38(3): 340-343.

Meinecke, F. 1946. *Die Deutsche Katastrophe*. Wiesbaden: Brockhaus.

Mendieta, E. 2011. 'Geography Is to History as Woman Is to Man.' In Elden, S. and Mendieta, E. (eds). *Reading Kant's Geography*. Albany: SUNY Press, 345-368.

Meinhold, W. 1953. 'André,Christian Karl.'In Hockerts, G. (ed). *Neue Deutsche Biographie* 1 (1953), 275. Available at: http://www.deutsche-biographie.de/pnd100011152.html
[Last accessed on 16 January 2013].

Mejstrik, A. 2005. 'Raumforstellungen in den Geschichts- Sozial- und Kulturwissenschaften. Epistemologische Profile.' In Alexander C. T. , Geppert, Uffa Jensen, Jörn Weinhold (eds). *Ortsgespräche: Raum und Kommunikation im 19. und 20. Jahrhundert*. Bielefeld: Transcript Verlag, 53-78.

Melton, J. v. H. 1988. *Absolutism and the eighteenth-century origins of compulsory schooling in Prussia and Austria*. Cambridge: Cambridge University Press.

Mensching, G. 1991. 'Vernunft und Selbstbehauptung. Zum Begriff der Seele in der europäischen Aufklärung.' In Jüttemann, G., Sonntag, M. Wulf, C. (eds). *Die Seele. Ihre Geschichte im Abendland*. Weinheim: Psychologie Verlags Union, 217-235.

Meštrović, S. G. 1998. *Anthony Giddens: The last modernist*. London: Routledge.

Meusburger, P., Livingstone, D.N., Jöns, H. (eds). *Geographies of Science*. Heidelberg: Springer.

Meyer, A. 2008. *Von der Wahrheit zur Wahrscheinlichkeit*. *Die Wissenschaft vom Menschen in der schottischen und deutschen Aufklärung*. Tübingen: Max Niemeyer Verlag.

Migl, J. 2008. *Sammlung Deutscher Drucke 1701-1800*. Göttingen: Niedersächsische Staats- und Universitätsbibliothek Göttingen.
Available at: http://www.sub.uni-goettingen.de/ebene_1/1_sdd.html.de
[Last accessed on 12 April 2010].

Migl, J. 2009. *Niedersächsische Staats- und Universitätsbibliothek Göttingen*. Göttingen: Arbeitsgemeinschaft Sammlung deutscher Drucke.
Available at: http://www.ag-sdd.de/bibliotheken/sub.htm

[Last accessed on 12 April 2010].

Mitman, G., Murphy, M., and Sellers, C. 2004. 'Introduction: A Cloud Over History.' *Osiris*, 19: 1-17.

Mittler, E. and Mücke, U. (eds). 2005. *Die spanische Aufklärung in Deutschland. Eine Ausstellung aus den Beständen der Niedersächsischen Staats- und Universitätsbibliothek*. Göttingen: Niedersächsische Staats- und Universitätsbibliothek Göttingen.

Mittler, E. and Wangerin, W. 2004. *Nützliches Vergnügen. Kinder- und Jugendbücher der Aufklärungszeit aus dem Bestand der Niedersächsischen Staats- und Universitätsbibliothek Göttingen und der Vordemann-Sammlung, Ausstellungskatalog*. Göttingen: Niedersächsischen Staats- und Universitätsbibliothek Göttingen.

Möller, H. 1974. *Aufklärung in Preußen: der Verleger, Publizist und Geschichtsschreiber Friedrich Nicolai*. Berlin: Colloquium Verlag.

Möller, H. 1986. *Vernunft und Kritik. Deutsche Aufklärung im 17. und 18. Jahrhundert.* Frankfurt am Main: Suhrkamp Verlag.

Montgomery, S. L. 2000. *Science in translation. Movements of knowledge through cultures and time.* Chicago: University of Chicago Press.

Muhlack, U. 1991. *Geschichtswissenschaft im Humanismus und in der Aufklärung. Die Vorgeschichte des Historismus*. München: Verlag C. H. Beck.

Muhs, R., Paulmann, J., Steinmetz, W. (eds). 1998. *Aneignung und Abwehr. Interkultureller Transfer zwischen Deutschland und Großbritannien im 19. Jahrhundert*. Bodenheim: Philo.

Müller, G. 1906 'Lindner, Friedrich Wilhelm.' In Historische Kommission bei der Bayerischen Akademie der Wissenschaften (ed). *Allgemeine Deutsche Biographie*, Band 51 (1906), 737–738.
Available at:
http://de.wikisource.org/w/index.php?title=ADB:Lindner,_Friedrich_Wilhelm&oldid=1707440
[Last accessed on 15 January 2013].

Müller, K. 1961. 'Feder, Johann Georg Heinrich.' In Hockerts, G. (ed). *Neue Deutsche Biographie*, 5 (1961), 41-42.
Available at: http://www.deutsche-biographie.de/pnd100796923.html
[Last accessed on 16 January 2013].

Müller, T. 1957. 'Die Geschichte der Geographie am Collegium Carolinum in Braunschweig 1745-1834.*' Braunschweigisches Jahrbuch*, 38: 75-94.

Müller, M. 2006. 'What's in a word? Problematizing translation between languages.' *Area*, 39(2): 206-213.

Müller, S. 2008. 'Paradigma Organismus versus Paragigma Mechanismus – Zwei wissenschaftstheoretische Leitbilder'. In Gross, D., Cepl-Kaufmann, G., and Gereon Schäfer, G. (eds). *Die Konstruktion von Wissenschaft. Beiträge zur Medizin-, Literatur- und Wissenschaftsgeschichte*. 13-28.

Murdoch, A. Müller, 2004. 'A crucible for change: Enlightenment in Britain.' Fitzpatrick, M., Jones, P., Knellwolf, C., and McCalman, I. (eds). *The Enlightenment World*. London: Routledge, 104-116.

Naragon, S. 2006. *Brief Descriptions of the German Universities*. Manchester: Manchester College. Available at: http://www.manchester.edu/kant/Universities/univBriefHistories.htm [Last accessed on 12 November 2010].

Naylor, S. 2002. 'The field, the museum and the lecture hall: the spaces of natural history in Victorian Cornwall.' *Transactions of the Institute of British Geographers*, 27(4): 494-513.

Naylor, S. 2005. 'Introduction: historical geographies of science – places, contexts, cartographies.' *British Journal for the History of Science*, 38(1): 1-12.

Ogborn, M. 2002. 'Writing travels: power, knowledge and ritual on the English East India Company's early voyages.' *Transactions of the Institute of British Geographers*, 27(2): 155-71.

Ogborn, M. and Withers, C. W. J. (eds). 2010. *Geographies of the Book*. Farnham: Ahsgate.

O'Neill, O. 2011. 'Orientation in Thinking: Geographical Problems, Political Solutions.' Elden, S. and Mendieta, E. (eds). *Reading Kant's Geography*. Albany: SUNY Press, 215-232.

Ong, J. W. 2004. *Ramus, Method, and the Decay of Dialogue*. *From the Art of Discourse to the Art of Reason*. Chicago: The University of Chicago Press.

Ophir, A. and Shapin, S. 1991. The place of knowledge: a methodological survey. *Science in Context*, 4: 3-21.

Osterhammel, J. 2001. 'Transnationale Gesellschaftsgeschichte: Erweiterung oder Alternative?' *Geschichte und Gesellschaft* 27 (3): 464-479.

Osterhammel, J. 2006. 'Welten des Kolonialismus im Zeitalter der Aufklärung.' In Lüsebrink, H.-J. (ed). *Das Europa der Aufklärung und die außereuropäische koloniale Welt*. Göttingen: Wallstein Verlag, 19-36.

Outram, D. 1996. 'New Spaces in Natural History.' In Jardine, N., Secord, J. and Spary, E. (eds). *Cultures of Natural History*. Cambridge: Cambridge University Press, 249-65.

Outram, D. 2005. *The Enlightenment*. Cambridge: Cambridge University Press.

Outram, D. 1999. 'On Being Perseus: New Knowledge, Dislocation, and Enlightenment Exploration.' In Livingstone, D. N. and Withers, C. W. J. (eds). *Geography and Enlightenment*. Chicago: University of Chicago Press, 281-294.

Oz-Salzberger, F. 1995. *Translating the Enlightenment: Scottish Civic Discourse in Eighteenth-Century Germany*. Oxford: Clarendon Press.

Oz-Salzberger, F. 2007. 'The Enlightenment in Translation: Regional and European Aspects.' *European Review of History: Revue europeenne d'histoire*, 385-409.

Palladini, F. 1996. *Samuel Pufendorf und die europäische Frühaufklärung: Werk und Einfluß eines deutschen Bürgers der Gelehrtenrepublik nach 300 Jahren (1694 - 1994)*. Tagung, Freie Universität Berlin 1994. Berlin: Akademie-Verlag.

Paquette, G. B. 2008. *Enlightenment, Governance, and Reform in Spain and Its Empire, 1759 –1808*. Basingstoke: Plagrave Macmillan.

Parman, S. 1991. *Scottish crofters: a historical ethnography of a Celtic village*. Forth Worth and London: Holt, Rinehart and Winston.

Patel, K. K. 2003. 'Transatlantische Perspektiven transnationaler Geschichte.' *Geschichte und Gesellschaft*, 29 (2003): 625-47.

Patel, K. K. 2004. 'Nach der Nationalfixiertheit. Perspektiven einer transnationalen Geschichte.' *Öffentliche Vorlesungen der Humboldt-Universität zu Berlin*, 128: 1-43.

Paulmann, J. 1998. 'Interkultureller Transfer zwischen Deutschland und Großbritannien: Einführung in ein Forschungskonzept.' In Muhs, R., Paulmann, J., Steinmetz, W. (eds). *Aneignung und Abwehr. Interkultureller Transfer zwischen Deutschland und Großbritannien im 19. Jahrhundert*. Bodenheim: Philo, 21-43.

Paulsen, F. 1902. *Die Deutschen Unversitäten und das Universitätsstudium*. Berlin: Verlag von A. Ahser & Co.

Paulsen, F. 1965. *Geschichte des gelehrten Unterrichts auf den deutschen Schulen und Universitäten vom Ausgang des Mittelalters bis zur Gegenwart: Mit besonderer Rücksicht auf den klassischen Unterricht*. Berlin: Veit & company.

Peitsch, H. 2006. '"Noch war die halbe Oberfläche der Erdkugel von tiefer Nacht bedeckt." Georg Forster über die Bedeutung der Reisen der europäischen "Seemächte" für das deutsche "Publikum".' In Lüsebrink, H.-J. (ed). *Das Europa der Aufklärung und die außereuropäische koloniale Welt.* Göttingen: Wallstein Verlag, 157- 174.

Phillips, D. 2012. *Acolytes of Natures. Defining Natural Science in Germany 1770-1850*. Chicago and London: University of Chicago Press.

Phillipson, N. 1981. 'The Scottish Enlightenment.' Porter, R. and Teich, M. (eds). 1981. *The Enlightenment in National Context.* New York: Cambridge University Press, 19-40.

Pleines, J. E. 1984. *Eudaimonia zwischen Kant und Aristoteles: Glückseligkeit als höchstes Gut menschlichen Handelns*. Würzburg: Königshausen und Neumann.

Plewe, E. 1986. 'Ausgewählte Beiträge zur Geschichte und Methode des Faches von Ernst Plewe.' In Meynen, E. And Wardenga, U. (eds). *Geographie in Vergangenheit und Gegenwart Stuttgart.* Wiesbaden: Franz Steiner Verlag Wiesbaden GmbH.

Pocock, J. G. A. 1985. 'Clergy and commerce. The conservative enlightenment in England.' *L'eta dei lumi. Studi storici sul settecento europeo in onore di Franco Venturi*. Vol. I. Napoli: Jovene, 523- 62.

Pocock, J. G. A. 1999-2003. *Barbarism and Religion*. Cambridge: Cambridge University Press.

Popper, K. R. 1959. *The Logic of Scientific Discovery*. London: Hutchinson

Porter, R. 1981. 'The Enlightenment in England.' In Porter, R. and Teich, M. (eds). 1981. *The Enlightenment in National Context.* New York: Cambridge University Press, 1-18.

Porter, R. 1990. *The Enlightenment*. Basingstoke: Macmillan Education.

Porter, R. and Teich, M. (eds). 1981. *The Enlightenment in National Context.* New York: Cambridge University Press.

Porter, R. 1981b. 'The Enlightenment in England.' In Porter, R. and Teich, M. (eds). *The Enlightenment in National Context*. New York: Cambridge University Press, 1-18.

Powell, R. C. 2007. 'Geographies of science: histories, localities, practices, futures.' *Progress in Human Geography*, 31(3): 309-329.

Price, M. B. and Price, L. M. 1934. *The Publication of English literature in Germany in the eighteenth century.* Berkeley: University of California Press.

Price, L. M. and Price, M.B. 1955. *The Publication of English Humaniora in Germany in the Eighteenth Century.* Berkeley: University of California Press.

Prüfer, T. 2002. *Die Bildung der Geschichte: Friedrich Schiller und die Anfänge der modernen Geschichtswissenschaft*. Köln: Böhlau.

Prutz, R. E. 1845. *Geschichte des deutschen Journalismus*. Hannover: C. F. Ruis.

Pütz, H. P. 1979. *Die Deutsche Aufklärung*. Darmstadt: Wissenschaftliche Buchgesellschaft.

Pyenson, L. 2002. 'An end to national science: the meaning and extension of local knowledge.' *History of Science*, 40: 251-90.

Rahmsdorf, S. 2010. *Retrospektive Digitalisierung wissenschaftlicher Rezensionsorgane und Literaturzeitschriften des 18. und 19. Jahrhunderts aus dem deutschen Sprachraum.* Bielefeld: Universitätsbibliothek Bielefeld 2002-2008. Available at: http://www.ub.uni-bielefeld.de/diglib/aufklaerung/index.htm [Last accessed on 12 April 2010].

Raj, K. 2007. *Relocating Modern Science: Circulation and the Construction of Knowledge in South Asia and Europe, 1650-1900*. Basingstoke: Palgrave Macmillan.

Ratzel, F. 1878. 'Gaspari, Adam Christian.' In Historische Kommission bei der Bayerischen Akademie der Wissenschaften (ed). *Allgemeine Deutsche Biographie*, 8 (1878), 394. [Online version/ Onlinefassung].
Available at: http://www.deutsche-biographie.de/pnd117675482.html?anchor=adb [Last accessed on 7 October 2012].

Ratzel, F. 1879. 'Hager, Johann Georg.' In Historische Kommission bei der Bayerischen Akademie der Wissenschaften (ed). *Allgemeine Deutsche Biographie*, 10 (1879), 353-354.
Available at: http://www.deutsche-biographie.de/pnd104366117.html?anchor=adb [Last accessed on 16 January 2013].

Ratzel, F. 1886. 'Norrmann, Gerhard Philipp Heinrich.' In Historische Kommission bei der Bayerischen Akademie der Wissenschaften (ed). *Allgemeine Deutsche Biographie*, Band 24 (1886), 21–22.
Available at:
http://de.wikisource.org/w/index.php?title=ADB:Norrmann,_Gerhard_Philipp_Heinrich&oldid=1691886
[Last accessed on 16 January 2013].

Ratzel, F. 1889. 'Ritter, Karl.' In Historische Kommission bei der Bayerischen Akademie der Wissenschaften (ed). *Allgemeine Deutsche Biographie*, Band 28 (1889), 679–697.
Available at:
http://de.wikisource.org/w/index.php?title=ADB:Ritter,_Carl&oldid=1704437
[Last accessed on 15 January 2013].

Ratzel, F. 1893. 'Stein, Christian Gottlieb Daniel.' In Historische Kommission bei der Bayerischen Akademie der Wissenschaften (ed). *Allgemeine Deutsche Biographie*, Band 35 (1893), S. 605–606.
Available at:
http://de.wikisource.org/w/index.php?title=ADB:Stein,_Christian_Gottlieb_Daniel&oldid=1695293
[Last accessed on 15 January 2013].

Reb-Gombeaud, S. 2003. 'L'Aufklärung catholique: avatar de la Spätaufklärung ou form spécifique de l'Aufklärung en Allemagne?.' In : Schneiders, W. (ed). *The Enlightenment in Europe: Unity and Diversity. Les Lumières en Europe: Unité et Diversité. Aufklärung in Europa: Einheit und Vielfalt*. Berlin: Berliner Wissenschafts-Verlag, 165-182.

Reedy, W. M. 'Against Constructivism. The Historical Ethnography of Emotions.' *Current Anthropology*, 38(3): 327-351.

Reichardt, R. 1988. '"Freymütigkeit, doch kein SansCülotismus…" Transfer und Transformation der Französischen Revolution in Verdeutschung französischer Revolutionsschriften 1789-1799.' In Espagne, M. and Werner, M. (eds). *Transferts*. Paris: Recherche sur les Civilisations, 273-326.

Reill, P. H. 1973. 'History and Hermeneutics in the *Aufklärung*: The thought of Johann Christoph Gatterer.' *The Journal of Modern History*, 45(1): 24-51.

Reill, P. H. 1975. *The German Enlightenment and the Rise of Historicism*. Berkeley and Los Angeles: University of California Press.

Reill, P. H. 2008. 'The Enlightenment from the German Periphery: Johann Herder's reinterpretation of the Enlightenment.' In Butterwick, R., Davies, S. and Espinosa, G. S. (eds). *Peripheries of the Enlightenment*. Oxford: SVEC, 281-288.

Reinalter, H. 2003. 'Die Träger der Aufklärung in Österreich.' Schneiders, W. (ed) 2003a. *The Enlightenment in Europe: Unity and Diversity. Les Lumières en Europe: Unité et Diversité. Aufklärung in Europa: Einheit und Vielfalt.* Berlin: Berliner Wissenschafts-Verlag, 233-240.

Rese 1824. 'Büsching (Anton Friedrich).' In Ersch, J. S., Gruber, J. G., Meier, M.H.E. (eds). *Allgemeine Encyclopaedie der Wissenschaften und Künste*, 1,13: Briänsk – Bukuresd. Leipzig: Gleditsch, 385-389.

Richards, P. 1974. ‘Kant’s Geography and Mental Maps.’ *Transactions of the Institute of British Geographers*, 61: 1-16.

Robertson, J. 1997. ‘The Enlightenment above national context: Political economy in eighteenth-century Scotland and Naples.’ *The Historical Journal*, 40(3): 667-697.

Robertson, J. 2005. *The Case for the Enlightenment: Scotland and Naples 1680-1760.* Cambridge: Cambridge University Press.

Roblin, F. H. 1990. ‘Political Rhetoric in the German Enlightenment.’ In Hellmuth, E. (ed). *The Transformation of Political Culture: England and Germany in the Late Eighteenth Century*. Oxford: Oxford University Press [for] the German Historical Institute, 409-421.

Rödel, W.G. 2001-2013. ‘Die demographische Entwicklung in Deutschland 1770-1820.’ *Institut für Geschichtliche Landeskunde an der Universität Mainz e.V. 2001-2013*. Regionalgeschichte.net. Available at: http://www.regionalgeschichte.net/bibliothek/texte/aufsaetze/roedel-entwicklung.html
[Last accessed on 11 June 2013].

Rosenberg, R. 1999. ‘Aufklärung in der deutschen Literaturgeschichtsschreibung des 19. Jahrhunderts. ’ In Dainat, H., and Vosskamp, W. (eds) *Aufklärungsforschung in Deutschland.* Heidelberg: Universitätsverlag C. Winter, 7-20.

Rubin, J. S. 2003. ‘What Is the History of the History of the Books?’ *The Journal of American History*, 90(2): 555-575.

Rudolph, K. 2005. *Die Gnosis: Wesen und Geschichte einer spätantiken Religion*. 4. Auflage. Göttingen: Vandenhoeck Ruprecht.

Rupke, N. A. 2000. ‘Translation studies in the history of science: the example of *Vestiges*.’ *British Journal for the History of Science*, 33(2): 209-222.

Rupke, N. A. 2002. (ed). *Göttingen and the Development of the Natural Sciences*. Göttingen: Wallstein.

Rupke, N. A. 2005. ‘Alexander von Humboldt and Revolution: A Geography of Reception of the Varnhagen Von Else Correspondence.’ In Livingstone, D. N. and Withers, C. J. W. (eds). *Geography and Revolution*. Chicago: University of Chicago Press, 336-350.

Rupke, N. A. 2008. *Alexander von Humboldt: A Metabiography*. Chicago: University of Chicago Press.

Rupke, N. A. 2011. 'Afterword: Putting the Geography of Science in Its Place.' In Livingstone, D. N. and Withers, C. W. J. (eds). *Geographies of Nineteenth-Century Science*. Chicago and London: The University of Chicago Press, 439-454.

Rusnock, A. 1999. 'Correspondence networks and the Royal Society.' *The British Journal for the History of Science*, 32(2): 155-69.

Russell, B. 1984 [1945]. *A History of Western Philosophy*. Book Three. London: Unwin Paperbacks.

Ryan, J. 2003. 'History and philosophy of geography: bringing geography to the book, 2000-2001.' *Progress in Human Geography*, 27(2): 195-202.

Saada, A. 2003. 'Le théâtre, vecteur de l'Aufklärung?' In Schneiders, W. (ed). *The Enlightenment in Europe: Unity and Diversity. Les Lumières en Europe: Unité et Diversité. Aufklärung in Europa: Einheit und Vielfalt.* Berlin: Berliner Wissenschafts-Verlag, 265-285.

Saada, A. 2007. 'Das Göttinger Bibliotheksarchiv als Archiv des Aufklärungsprozesses.' In Bödeker, H. E. and Saada, A. (eds). *Bibliothek als Archiv*. Göttingen: Vandenhoeck and Ruprecht, 57-70.

Said, E. W. 1978. *Orientalism*. New York: Vintage Books.

Said, E. W. 1990. 'Narrative, Geography, and Interpretation.' *New Left Review I*, 180, 81-97.

Saldana, J. J. 2006. (ed). *Science in Latin America: A History*. Austin TX: University of Texas Press.

Salzbrunn, J. 1968. *Studien zum historischen Zeitschriftenwesen von der Göttinger Aufklärung bis zur Herausgabe der HZ*. PhD thesis. University of Münster.

Sauschkin, J. G. 1978. *Studien zu Geschichte und Methodologie der geographischen Wissenschaft*. Gotha: Haak.

Sauer, C. 1923 [1963]. 'The morphology of landscape.' In Leighty, J. (ed). *Land and life: a selection from the writings of Carl Ortwin Sauer*. Berkeley, CA: University of California Press, 315–50.

Safier, N. 2010. 'Itineraries of Atlantic Science – New Questions, New Approaches, New Directions.' *Atlantic Studies* 7 (2010): 357–509.

Schaffer, S. 1998. 'Physics laboratories and the Victorian country house.' In Agar, J. and Smith, C. (eds). *Making Space for Science.* Basingstoke: Macmillan in association with the Centre for the History of Science, Technology and Medicine, University of Manchester, 149-80.

Schalk, F. 1964. 'Die Europäische Aufklärung.' In Mann, G. (ed). *Propyläen Weltgeschichte. Eine Universalgeschichte*. Siebenter Band. Berlin, Frankfurt/Main: Propyläen Verlag, 469-512.

Schalk, F. 1978. 'Die Akademien und die Entstehung neuer Wissenschaften im Zeitalter der Aufklärung.' *Berichte zur Wissenschaftsgeschichte*, 1: 37-42.

Schama, S. 1981. 'The Enlightenment in the Netherlands.' In Porter, R. and Teich, M. (eds). 1981. *The Enlightenment in National Context.* New York: Cambridge University Press, 54-71.

Schatzberg, W. 1973. *Scientific Themes in the Popular Literature and the Poetry of the German Enlightenment, 1720-1760*. Berne: Herbert Lang.

Schauer, M. 2005. 'Friedrich Immanuel Niethammer und der bildungspolitische Streit des Philanthropismus und Humanismus um 1800.' *Pegasus-Onlinezeitschrift*, V(1): 28-45.

Schenda, R. 1970. *Volk ohne Buch. Studien zur Sozialgeschichte der populären Lesestoffe, 1770-1910*. Frankfurt/Main: Vittorio Klostermann.

Schilling, H. 2004. *Die Stadt in der frühen Neuzeit. Enzyklopädie deutscher Geschichte*. Band 24. München: Oldenbourg Wissenschaftsverlag.

Schindling, A. 1999. *Bildung und Wissenschaft in der frühen Neuzeit 1650-1800*. 2. Auflage. Munich: Oldenbourg Verlag GmbH.

Schlup, M. 2009. 'No 2: Ostervald, Frédéric Samuel.' *Historisches Lexikon* der Schweiz.
Available at: http://www.hls-dhs-dss.ch/textes/d/D15907.php
[Last accessed on 9 February 2013].

Schmidt, H. 1986. 'Die Kunst des Reisens. Bemerkungen zum Reisebetrieb im späten 18. Jahrhundert am Beispiel von Goethes erster Italienreise.' In J. v. Göres (ed). *Goethe in Italien. Auf klassischem Boden begeistert*. Mainz: Phillip von Zabern Verlag, 9-14.

Schmidt, G. 2009. *Vernunft durch Wandel*. *Deutsche Geschichte im 18. Jahrhundert*. München: C. H. Beck.

Schmidt, J. 1996. 'Introduction: What is Enlightenment? A Question, Its Context, and Some Consequences.' In Schmidt, J. (ed). *What Is Enlightenment? Eighteenth-Century Answers and Twentieth-Century Questions*. Berkeley, CA; London: University of California Press, 1-44.

Schmitt, H. 2005. 'Die Philanthropine – Musterschulen der pädagogischen Aufklärung.' In Hammerstein, N. and Herrmann, U. (eds). 2005. *Handbuch der deutschen Bildungsgeschichte. Band II. 18. Jahrhundert. Vom späten 17. Jahrhundert bis zur Neuordnung Deutschlands um 1800*. München: Beck, 262-277.

Schneider, U. J. (ed). 2008. *Kulturen des Wissens im 18. Jahrhundert*. Berlin, New York: De Gruyter.

Schneiders, W. (ed). 2003a. *The Enlightenment in Europe: Unity and Diversity. Les Lumières en Europe: Unité et Diversité. Aufklärung in Europa: Einheit und Vielfalt*. Berlin: Berliner Wissenschafts-Verlag.

Schneiders, W. 2003b. 'Einheit und Vielfalt der Aufklärung.' In Schneiders, W. (ed). *The Enlightenment in Europe: Unity and Diversity. Les Lumières en Europe: Unité et Diversité. Aufklärung in Europa: Einheit und Vielfalt.* Berlin: Berliner Wissenschafts-Verlag, xix-xxiii.

Schramm, P. E. 1964. *Hamburg. Ein Sonderfall in der Geschichte Deutschlands.* Hamburg: Christians.

Schrettenbrunner, H. L. 1990. 'Geography in General Education in the Federal Republic of Germany'. *GeoJournal*, 20 (1): 33-36.

Schröder, K. H. 1977. *Geographie an der Universität Tübingen 1512-1977*. Tübingen: Selbstverlag des Geographischen Instituts der Universität Tübingen.

Schröder, T. 2001. 'The origins of the German press.' In Dooley, B. and Baron, S. A. (eds). *Politics of information in early modern Europe*. London: Routledge, 123-150.

Schultz, H.-D. 1980. *Die deutsch-sprachige Geographie von 1800 bis 1970: Ein Beitrag zur Geschichte ihrer Methodologie*. Berlin: Selbstverlag des Geographischen Instituts der Freien Universität Berlin.

Schüttler, H. 2008. 'Das Kommunikationsnetz der Illuminaten. Aspekte einer Rekonstruktion.' In Schneider, U. J. (ed). *Kulturen des Wissens im 18. Jahrhundert*. Berlin, New York: De Gruyter, 141-150.

Schwarz, G. 1954. 'Die Entwicklung der geographischen Wissenschaft seit dem 18. Jahrhundert.' *Quellensammlung zur Kulturgeschichte*, *Schrift 5*. Berlin. Wissenschaftliche Editionsgesellschaft mbH. Berlin.

Scurla, H. 1976. *Jenseits des Steinernen Tores: Reisen dt. Forscher des 18. und 19. Jahrhunderts durch Sibirien*. Berlin: Verlag der Nation.

Secord, J. A. 2004. 'Knowledge in transit.' *Isis,* 95: 654-72.

Secord, J. A. 1985. 'Newton in the Nursery: Tom Telescope and the Philosophy of Tops and Balls, 1761-1838.' *History of Science*, 23: 127-151.

Seifert, A. 1976. *Cognitio historica: Die Geschichte als Namengeberin der frühneuzeitlichen Empirie*. Duncker und Humblot: Berlin.

Sesink, W. 2007. *Das Pädagogische Jahrhundert*. Skript zur Vorlesung im SS 2007 TU Darmstadt.
Available at: http://www.abpaed.tu-darmstadt.de/media/arbeitsbereich_bildung_und_technik/gesammelteskripte/pjh_2007.pdf
[Last accessed on 6 December 2012].

Shapin, S. 1988. 'The House of Experiment in Seventeenth-Century England.' *Isis*, 79: 373-404.

Shapin. S. 1995. 'Here and Everywhere: Sociology of Scientific Knowledge.' *Annual Review of Sociology*, 21: 289-321.

Shapin, S. 1998. 'Placing the view from nowhere: historical and sociological problems in the location of science.' *Transactions of the Institute of British Geographers,* 23: 5-12.

Shapin, S. 2003. 'Review of Livingstone's *Science, Space and Hermeneutics*.' *British Journal for the History of Science,* 36(1): 89-90.

Shapin, S. 2010. *Never Pure. Historical Studies of Science as if It Was Produced by People with Bodies, Situated in Time, Space, Culture, and Society, and Struggling for Credibility and Authority*. Baltimore, Maryland; The John Hopkins University Press.

Shapin, S. and Schaffer, S. 1985. *Leviathan and the Air-Pump: Hobbes, Boyle, and the Experimental Life*. Princeton: Princeton University Press.

Shapin, S. and Schaffer, S. 2011. 'Introduction to the 2011 Edition: Up for Air: *Leviathan and the Air-Pump* a Generation On.' In *Leviathan and the Air-Pump: Hobbes, Boyle, and the Experimental Life*. Princeton: Princeton University Press, xi-l.

Sher, R. B. 2006. *The Enlightenment and the Book. Scottish Authors and their Publishers in Eighteenth-Century Britain, Ireland, and America*. Chicago: University of Chicago Press.

Siegert, R. 1999. 'Zur Alphabetisierung in den deutschen Regionen am Ende des 18. Jahrhunderts.' In Bödeker, H. E. and Hinrichs, E. (eds). *Alphabetisierung und Literalisierung in Deutschland in der Frühen Neuzeit*. Wolfenbütteler Studien Zur Aufklärung, volume 26. Tübingen: Niemeyer, 283-307.

Simões, A., Carneiro, A. and Diogo, M. P. (eds). 2003. *Travels of Learning: A Geography of Science in Europe*. Dordrecht and Boston: Kluwer Academic.

Sismondo, S. 2010. *An Introduction to Science and Technology Studies*. 2nd edition. Chichester: Blackwell.

Sitwell, O. F. G. 1993. *Four Centuries of Special Geography. An Annotated Guide to Books that Purport to Describe All the Countries in the World Published in English Before 1888, with a Critical Introduction*. Vancouver: UBC Press.

Soja, E. W. 1989. *Postmodern Geographies: Reassertion of Space in Critical Social Theory*. London and New York: Verso.

Sparn, W. 2005. 'Religiöse und theologische Aspekte der Bildungsgeschichte im Zeitalter der Aufklärung.' Hammerstein, N. and Herrmann, U. (eds). *Handbuch der deutschen Bildungsgeschichte. Band II. 18. Jahrhundert. Vom späten 17. Jahrhundert bis zur Neuordnung Deutschlands um 1800*. München: Beck, 134-168.

Stafford, B. 1984. *Voyage into Substance: Art, Science, Nature, and the Illustrated Travel Account, 1760-1840*. Cambridge, MA: MIT Press.

Stagl, J. 1995. *A History of Curiosity. The Theory of Travel 1550-1800.* Chur, Switzerland: Harwood Academic Publisher.

Stark, W. 2001. *Immanuel Kants physische Geographie – eine Herausforderung? Inaugual lecture 4. Mai 2001 in Marburg*. Marburg: Philipps-Universität. Available at: http://web.uni-marburg.de/kant//webseitn/ws_lese4.htm [Last accessed on 23 February 2011].

Staum, M. S. 1987. 'Human Geography in the French Institute: New Discipline or Missed Opportunity?' *The Journal of the History of the Behavioral Sciences*, 23 (October): 332-340.

Staum, M. S. 1996. *Minerva's Message. Stabilizing the French Revolution*. Montreal, London: McGill-Queen's University Press.

Stefl, F. 1902. *Beiträge zur Geschichte des geographischen Unterrichts and den humanistischen Gymnasien des Königreichs Bayern*. Regensburg: Schiele.

Stein, H. 1972. 'Die Geographie an der Universität Jena (1786-1939).' *Erdkundliches Wissen* 29, 131-149.

Stewart, G. M. 1975. 'Christoph Daniel Ebeling, Hamburger Pädagoge und Literaturkritiker, und seine Briefe an Charles Burney.' *Zeitschrift des Vereins für Hamburgische Geschichte*, 61: 33-58.

Stewart, G. M. 1976. 'Christoph Daniel Ebeling: America's friend in eighteenth-century Germany.' *Monatshefte,* 68(2): 151-161.

Stewart, G. M. 1978. *The literary contributions of Christoph Daniel Ebeling*. Amsterdam: Rodopi.

Stichweh, R. 1984. *Zur Entstehung des modernen Systems wissenschaftlicher Disziplinen: Physik in Deutschland, 1740-1890*. Frankfurt am Main: Suhrkamp Verlag.

Stockhorst, S. 2010. 'Introduction. Cultural transfer through translation: a current perspective in Enlightenment studies.' In Stockhorst, S. (ed). *Cultural Transfer Through Translation: The Circulation of Enlightened Thought in Europe by Means of Translation*. Amsterdam: Rodopi, 7-26.

Stöckmann, E. 2009. *Anthropologische Aesthetik. Philosophie, Psychologie und ästhetische Theorie der Emotionen im Diskurs der Aufklärung*. Tübingen: Max Niemeyer.

Strauß, E. 1996. 'Zwischen Originalität und Trivialität. Die Rolle der *virtuosi* für das Wissenschaftsprogramm der Royal Society.' In Strauss, E. (ed). *Dilettanten und Wissenschaft. Zur Geschichte und Aktualität eines wechselvollen Verhältnisses*. Amsterdam; Atlanta, GA: Rodopi, 69-82.

Stuber, M. 2008. 'Die Korrespondenz der Oekonomischen Gesellschaft Bern, 1759-1800.' In Schneider, U. J. (ed). *Kulturen des Wissens im 18. Jahrhundert*. Berlin, New York: De Gruyter, 133-140.

Tang, C. 2008. *The Geographic Imagination of Modernity: Geography, Literature, and Philosophy in German Romanticism*. Stanford: Stanford University Press.

Tautz, B. 2006. 'Cutting, Pasting, Fabricating: Late 18th-Century Travelogues and their German Translators between Legitimacy and Imaginary Nations.' *The German Quarterly*, 72(2): 155-174.

Taylor, S. S. B. 1981. 'The Enlightenment in Switzerland.' In Porter, R. and Teich, M. (eds). *The Enlightenment in National Context*. New York: Cambridge University Press, 72-89.

Taylor, P. J., Hoyler, M. and Evans, D.M. 2008. 'A Geohistorical Study of 'The Rise of Modern Science': Mapping Scientific Practice Through Urban Networks, 1500-1900.' *Minerva*, 46(4): 391-410.

Terrall, M. 2002. *The Man Who Flattened the Earth: Maupertuis and the Sciences in the Enlightenment*. Chicago: The University of Chicago Press.

Thrift, N. 2002. 'The Future of Geography.' *Geoforum*, 33(3): 291-298.

Tiemann H. 1951. ‘Christoph Daniel Ebeling. Hamburger Amerikanist, Bibliothekar und Herausgeber Klopstocks.’ *Zeitschrift des Vereins für Hamburgische Geschichte*, 41 (1951): 352–374.

Towsey, M.R.M. 2010. *Reading the Scottish Enlightenment. Libraries, Readers and Intellectual Culture in Provincial Scotland c.1750-1820*. Leiden; Boston: Brill.

Turnbull, D. 2002. ‘Travelling knowledge: narratives, assemblage and encounters.’ In Bourguet, M.-N., Licoppe, C. and Sibum, H. O. (eds). *Instruments, travel and science: itineraries of precision from the seventeenth to the twentieth century*. London: Routledge, 273-94.

Turner, R. S. 1975. ‘University Reformers and Professorial Scholarship in Germany 1760-1806’. In Stone, L. (ed). *The University in Society. Volume II. Europe, Scotland, and the United States from the 16th to the 20th Century*. Princeton: Princeton University Press, 405-531.

Turner, S. 2008. ‘The Social Study of Science before Kuhn.’ In Hackett, E. J., Amsterdamska, O., Lynch, M, Wajcman, J. (eds). *The Handbook of Science and Technology Studies*. Third Edition. Cambridge, Mass.: MIT Press: Published in cooperation with the Society for the Social Studies of Science, 33-62.

Turner, B. S. (ed). 2009. *The new Blackwell Companion to Social Theory*. Malden, Mass.: Wiley-Blackwell.

Umbach, M. 2000. *Federalism and Enlightenment in Germany, 1740-1806*. London: Hambledon Press.

Umbach, M. 2002a. ‘Introduction: German Federalism in Historical Perspective.’ In Umbach, M. (ed). *German federalism: past, present, future*. Basingstoke: Palgrave, 1-14.

Umbach, M. 2002b. ‘History and Federalism in the Age of Nation-State Formation.’ In Umbach, M. (ed). *German federalism: past, present, future*. Basingstoke: Palgrave, 42-69.

Vermeulen, H. F. 2006. ‘The German invention of *Völkerkunde*: Ethnological Discourse in Europe and Asia, 1740-1798.’ In Eigen, S. and Larrimore, M. J. (eds). *The German invention of Race*. Albany: State University of New York Press, 123-145.

Vierhaus, R. 1979. ‘Zur historischen Deutung der Aufklärung: Probleme und Perspektiven.’ Raabe, P., Schmidt-Biggemann, W. (eds). *Aufklärung in Deutschland*. Bonn: Hohwacht, 23-36.

Vierhaus, R. (ed). 1985. *Wissenschaften im Zeitalter der Aufklärung: aus Anlass des 250jährigen Bestehens des Verlags Vandenhoeck & Ruprecht*. Göttingen: Vandenhoeck & Ruprecht.

Vierhaus, R. 1987. *Deutschland im 18. Jahrhundert. Politische Verfassung, soziales Gefüge, geistige Bewegung*. Göttingen: Vandenhoeck & Ruprecht.

Vierhaus, R. 1990. 'The Revolutionizing of Consciousness. *A German Utopia?*' In Hellmuth, E. (ed). *The Transformation of Political Culture: England and Germany in the Late Eighteenth Century*. Oxford: Oxford University Press [for] the German Historical Institute, 561-577.

Voss, Jürgen. 1980. 'Die Akademien als Organisationsträger der Wissenschaften im 18. Jahrhundert.' *Historische Zeitschrift*, 231(1): 43-74.

Vosskamp, W. 1999.'Aufklärungsforschung in Deutschland. Einleitung.' In Dainat, H., and Vosskamp, W. (eds). *Aufklärungsforschung in Deutschland*. Heidelberg: Universitätsverlag C. Winter, 1-6.

Wagener, W. 1936. *Die Standes- und Berufserziehung in der Pädagogik der Philanthropisten*. Leipzig Borna: Großbetrieb für Dissertationsdruck von Robert Roske.

Walls, L. D. 2009. *The Passage to Cosmos: Alexander von Humboldt and the Shaping of America*. Chicago, Illinois: University of Chicago Press.

Walters, A. 1997 'Conversation Pieces: Science and Politeness in Eighteenth-Century England.' *History of Science,* 35: 121-154.

Wangermann. E. 1981. 'Reform Catholicism and Political Radicalism in the Austrian Enlightenment.' In Porter, R. and Teich, M. (eds). *The Enlightenment in National Context*. New York: Cambridge University Press, 127-140.

Wangermann, E. 2003. 'Träger und Grundanliegen der Aufklärung in Österreich.' In Schneiders, W. (ed). *The Enlightenment in Europe: Unity and Diversity. Les Lumières en Europe: Unité et Diversité. Aufklärung in Europa: Einheit und Vielfalt*. Berlin: Berliner Wissenschafts-Verlag, 61-70.

Warf, B. and Arias, S. 2009. 'Introduction: The Reinsertion of Space in the Humanities and Social Sciences.' In Warf, B. and Arias, S. (eds). *The Spatial Turn: Interdisciplinary Perspectives*. London: Routledge, 1-10.

Welke, M. 1977. 'Zeitung und Öffentlichkeit im 18. Jahrhundert. Betrachtungen zur Reichweite und Funktion der periodischen deutschen Tagespublizisktik.' In Blühm, E. (ed). *Presse und Geschichte. Beiträge zur historischen Kommunikationsforschung*. München: Verlag Dokumentation, 71-99.

Wendland, F. 1992. *Peter Simon Pallas (1741-1811)*. Berlin: de Gruyter.

Wenk, H.-G. 1966. 'Die Geschichte der Geographie und der geographischen Landesforschung an der Universität Kiel von 1666 bis 1879.' *Schriften des geographischen Instituts der Universität Kiel*, 24(1).

Werner, M. and Zimmermann, B. 2006. 'Beyond Comparison: *Histoire Croisée* and the Challenge of Reflexivity.' *History and Theory*, 45(1): 30-50.

Whaley, J. 1981. 'The Protestant Enlightenment in Germany.' In Porter, R. and Teich, M. (eds). *The Enlightenment in National Context*. New York: Cambridge University Press, 106-117.

Wiesehöfer, J. and Conermann, S. (eds). 2002. *Carsten Niebuhr (1733 – 1815) und seine Zeit*. Stuttgart: Franz Steiner Verlag.

Willenberg, J. 2008. *Distribution und Übersetzung englischen Schrifttums im Deutschland des 18. Jahrhunderts.* K.G. Saur: München.

Wilson, P. H. 1998. *German Armies: War and German Politics, 1646-1806*. London; Bristol: UCL Press.

Wilson, P. H. 2004. *From Reich to Revolution: German History, 1558-1806*. Basingstoke: Palgrave Macmillan.

Withers, C. W. J. 1993. 'Geography in its time: geography and historical geography in Diderot's and d'Alemberts *Encyclodédie*.' *Journal of Historical Geography* 19 (3): 255-264.

Withers, C. W. J. 1995. 'Geography, Natural History and the Eighteenth-Century Enlightenment: Putting the World in Place.' *History Workshop Journal*, 39(1): 136-163.

Withers, C. W. J. 1996a. 'Encyclopaedism, Modernism and the Classification of Geographical Knowledge.' *Transactions of the Institute of British Geographers*, 21(1): 275-298.

Withers, C. W. J. 1996b. 'Geography, science and national identity in early-modern Britain: the case of Scotland and the work of Sir Robert Sibbald.' *Annals of Science,* 53(1): 29–73.

Withers, C. W. J. 1998a. 'Geography in Enlightenment Encyclopedias.' In Good, G. A. (ed). *Sciences of the Earth: and encyclopaedia of events, people and the phenomena.* (1) New York; London: Garland, 284-287.

Withers, C. W. J. 1998b. 'Towards a history of geography in the public sphere.' *History of Science,* 37: 45-78.

Withers, C. W. J. 1999. 'Geography, Enlightenment, and the Paradise Question.' In Livingstone, D.N. and Withers, C. W. J. (eds). *Geography and Enlightenment*. Chicago, London: University of Chicago Press, 67-92.

Withers, C. W. J. 2001. *Geography, Science and National Identity: Scotland since 1520*. Cambridge: Cambridge University Press.

Withers, C. W. J. 2002a. 'The Geography of Scientific Knowledge.' In Rupke, N. A. (ed). *Göttingen and the Development of the Natural Sciences*. Göttingen: Wallstein Verlag, 9-18.

Withers, C.W.J. 2002b. 'Situating Practical Reason: Geography, Geometry and Mapping in the Scottish Enlightenment.' In Withers, C.W.J. and Wood, P. (eds). *Science and Medicine in the Scottish Enlightenment*. Tuckwell, Phantassie, 54-78.

Withers, C. J. W. 2004. 'Mapping the Niger, 1798-1832: trust, testimony and 'ocular demonstration' in the late Enlightenment.' *Imago Mundi*, 56(2): 170-193.

Withers, C. J. W. 2005a. 'History and philosophy of geography 2002-2003: geography in its place.' *Progress in Human Geography*, 29 (1): 64-72.

Withers, C. J. W. 2005b. 'Working with old maps: charting the reception and legacy of Blaeu's 1654 *Atlas Novus*.' *Scottish Geographical Journals*, 121(3): 297-310.

Withers, C. W. J. 2006. 'Eighteenth-century geography: texts, practices, sites.' *Progress in Human Geography*, 30(6): 711-729.

Withers, C. W. J. 2007. *Placing the Enlightenment: Thinking Geographically About the Age of Reason*. Chicago and London: University of Chicago Press.

Withers, C. W. J. 2008. 'Where was the Atlantic Enlightenment?-Questions of Geography.' In Manning, S. and Cogliano, F. D. (eds). *The Atlantic Enlightenment*. Aldershot: Ashgate, 37-60.

Withers, C. W. J. 2009. 'Place and the 'Spatial Turn' in Geography and History'. *Journal of the History of Ideas,* 70 (4): 637-58.

Withers, C. J. W. 2010a. 'Geographies of Science and Public Understanding? Exploring the Reception of the British Association for the Advancement of Science in Britain and in Ireland, c.1845-1939.' In Meusburger, P., and Livingstone, D.N., Jöns, H. (eds). *Geographies of Science*. Heidelberg: Springer, 185-198.

Withers, C. J. W. 2010b. 'Geography's Narratives and Intellectual History.' In Agnew, J. A. and Livingstone, D. N. (eds). *The SAGE Handbook of Geographical Knowledge*. London: SAGE, 39-50.

Withers, C. J. W. 2011a. ‘Art, Science, Cartography, and the Eye of the Beholder.’ *Journal of Interdisciplinary History*, 42(3): 429-437.

Withers, C. W. J. 2011b. ‘Scale and the Geographies of Civic Science: Practice and Experience in the Meetings of the British Association for the Advancement of Science in Britain and in Ireland, c. 1845-1900.’*Geographies of Nineteenth-Century Science*. Chicago and London: The University of Chicago Press, 99-122.

Withers, C. W. J. 2011c. ‘Geography's Narrative and Intellectual History.’ In Agnew, J. A. and Livingstone, D. N. (eds). *The SAGE Handbook of Geographical Knowledge*. London: SAGE, 39-47.

Withers, C. W. J. 2011d. ‘Kant’s Geography in comparative perspective.’ In: Elden, S. and Mendieta, E. (eds). *Reading Kant’s Geography*. Albany: SUNY Press, 47-65.

Withers, C. W. J. 2013. ‘The Enlightenment and Geographies of Cosmopolitanism.’ *Scottish Geographical Journal*, 129 (1): 26-53.

Withers, C. J. W. and Livingstone. D. N. 2011. ‘Thinking Geographically about Nineteenth-Century Science.’ In Livingstone, D. N. and Withers, C. W. J. (eds). *Geographies of Nineteenth-Century Science*. Chicago and London: The University of Chicago Press, 1-19.

Withers, C. W. J. and Mayhew, R. J. 2002. ‘Rethinking ‘Disciplinary’ History: Geography in British Universities, c. 1580-1887.’ *Transactions of the Institute of British Geographers, New Series*, 27 (1): 11-29.

Withers, C. W. J. and Mayhew, R. J. 2011. ‘Geography: Space, Place and Intellectual History in the Eighteenth Century.’ *Journal for Eighteenth-Century Studies*, 34(4): 445-452.

Withers, C. W. J. and Wood. 2002. *Science and Medicine in the Scottish Enlightenment*. Edinburgh: Tuckwell Press.

Wokler, R. 1996. ‘Anthropology and Conjectural History in the Enlightenment.’ In Fox, C., Porter, R. and Wokler, R. (ed). *Inventing Human Science: Eighteenth-Century Domains*. Berkeley and London: University of California Press, 31-52.

Yearly, S. 2005. *Making Sense of Science: Understanding the Social Studies of Science.* London; Thousand Oakes: Sage Publications.

Young, B. W. 2009. ‘Review Articles: Enlightenment Political Thought and the Cambridge School.’ *The Historical Journal*, 52(1): 235-251.

Zammito, J. H. 2002. *Kant, Herder and the Birth of Anthropology*. Chicago: The University of Chicago Press.

Zaunstöck, H. 2003. ‘Zur Einleitung: Neue Wege der Sozietätsgeschichte.’ In: Zaunstöck, H. and Meumann, M. (eds). *Sozietäten, Netzwerke, Kommunikation: neue Forschungen zur Vergesellschaftung im Jahrhundert der Aufklärung*. Tübingen: Niemeyer, 1-10.

Zurbuchen, S. 2003. ‘Die Schweizer Aufklärung.’ In Schneiders, W. (ed). *The Enlightenment in Europe: Unity and Diversity. Les Lumières en Europe: Unité et Diversité. Aufklärung in Europa: Einheit und Vielfalt*. Berlin: Berliner Wissenschaftsverlag, 71-84.

# Appendix

## German geographical books published in the German states or their provinces, *c.*1690 – *c.*1815, by first year of edition or first identified version

| Name(s) of author(s) | Title of the geographical work | Year(s) of publication | Place of publication, name of publisher and/or printer |
|---|---|---|---|
| Hübner, Johann (1668-1731) | *Kurtze Fragen Aus der Neuen und alten Geographie: Zum guten Fundament Der curieusen und Politischen Wissenschafften Bequem und deutlich eingerichtet, Und Bey dieser neuen oder zweyten Edition an vielen Orten verbessert, Auch mit einem volständigern Register versehen; later: Kurtze Fragen Aus der Neuen und Alten Geographie: Biß auf gegenwärtige Zeit fortgesetzet und vermehret, Mit einer nützlichen Einleitung Vor Anfänger* | 1693 (second edition), between 1693 and 1731: 36 German editions, *e.g.*, 1702, 1735, as well as later editions after Hübner's death, *e.g.*, 1755, 1760, 1764, 1767 | Leipzig: Johann Friedrich Gleditsch, printed by Christian Fleischer (at the latest from 1733: Joh. Friedr. Gleditschens seel. Sohn, Buchhändler in Leipzig, 1733); 1755 and 1760: Regensburg and Wien: Verlag Emerich Felix Bader, Buchhändler; 1764: Leipzig: Johann Friedrich Gleditsch; 1767: Regenspurg; Wien: Bader. |
| Marcel, Guillaume (1647-1708) | *Conspectus Geographiae. Abbildung der Erd-Beschreibung. Auff eine besondere, kurzte und leicht Lehr-Art eingerichtet und ausgefertiget* | 1695, 1696,1702 (probably different editions, yet not indicated as that) | Hamburg: Benjamin Schillers Buchladen |
| Nehring, Johann Christian (?-?) | *Kurtze Einleitung in die Universal-Historie und Geographie: nebst einer Chronologischen Tabell / Der Geliebten Jugend zum besten heraus gegeben und bey dieser andern Aufflage vermehret von Johann Christian Nehringen* | 1699 | Cölln an der Spree |

| | | | |
|---|---|---|---|
| Junker (Juncker), Christian (1668-1714) | *Summarische Geographie in welcher enthalten das vornehmste, so zu Verständniß der Zeitungen zu wissen nöthig ist. In: Curieuse Gedancken von den Novellen oder Zeitungen] Christian Weisens Curieuse Gedancken von den Nouvellen oder Zeitungen, Denen, ausser der Einleitung, wie man Nouvellen mit Nutzen lesen solle, annoch beygefügt sind, Der Kern der Zeitungen vom Jahr 1660. bis 1702. Eine kurtzgefaste Geographie, Eine Compendieuse Genealogie aller in Europa regierenden hohen Häuser, und dann Ein sehr dienliches Zeitungs-Lexicon / also verfasset von M. C. J. [i.e. Christian Juncker]* | 1703 | Franckfurth and Leipzig; [Coburg]: in Verlag Paul Günther Pfotenhauer, Buchhändl. in Coburg |
| Hübner, Johann (1668-1731) | *Kurtze Fragen aus der Geographia sacra* | 1704 | Leipzig: Hülße |
| Hübner, Christian E. (1681-1713) | *Zulängliche Nachricht Von denen Berühmtesten und Nöthigsten Historici Chronologis Und Geographis* | 1705, 1711, 1731 (probably reprint after his death) | Hamburg: Benjamin Schillern, Buchhändlern im Thum |
| Gregorii, Johann Gottfried (alias Melissantes) (1685-1770) | *Asiæ Africæ & Americæ Geographia Novissima. Specialis Et Specialissima. Das ist: Eine sehr nützliche und wohl-eingerichte Land- und Städte-Beschreibung, Von Asia, Africa, America, Und denen Unbekandten Ländern um beyde Polos. Darinne Der vornehmsten Reiche, Länder, Städte ... deutliche und curieuse Erklärung, Wie auch dieser dreyen Welt-Theile Völcker, Sitten ... ausführliche Benennung zufinden ist / Alles durch sonderbahre Fragen, Historisch, Geographisch und Politisch in guter Ordnung ausgeführet, und mit einer Vorrede und Register dargestellet* | 1708 | Erfurt; Franckfurt; Leipzig: Stössel (Johann Christoph Stössel) |
| Gregorii, Johann Gottfried (alias Melissantes), from Toba (part of Helbedündorf) in | *Geographia Novissima, generalis, specialis, et specialissima: das ist eine sehr nützliche und durch accurate Fragen wohl* | 1708, 1709, 1713 (third edition), 1720 (fourth edition), | 1708 and 1709: Franckfurt; Leipzig: Stössel (Johann Christoph Stössel) Buchhändler in |

| | | | |
|---|---|---|---|
| Thuringia (1685-1770) | *eingerichtete Welt- Land- und Städte-Beschreibung; In 2 Theilen ausgefertigt...; later: Geographia Novissima, generalis, specialis, et specialissima: das ist eine sehr nützliche und wohl eingerichtete...* | 1729 (fifth edition) | Erffurth; 1713: Frankfurt; Leipzig; 1720: Franckfurth and Leipzig, Verlegts Johann Jacob Spieß, Buchhändler in Erffurth; 1729: Franckfurt and Leipzig |
| Anonymous | *Compendium historiae & geographiae universalis, das ist: Kurtze doch gründliche Einleitung zur Universal-Historie u. Geographie ... Kurze doch gründliche Einleitung zur Universal-Historie u. Geographie ...* | 1708 | Leipzig |
| Gude, Heinrich Ludwig (-1707); Gottschling, Caspar (1679-1739) | *Die ausländischen Staaten* | 1709-1724 | Halle |
| Hederich, Benjamin (1675-1748) | *Anleitung zu den vornehmsten Historischen Wissenschaften, nähmlich Zu der Geographie, Chronologie, Genealogie, Heraldik, allgemeinen Geschichtkunde, Kenntniss der alten Schriftsteller, römischen Alterthümern und der Mythologie: In sofern solche einem wohlerzogenen Menschen insonderheit aber denen, so die Wissenschaften zu treiben gedenken, nüzlich und nöthig sind / M. Benjamin Hederichs, Rectors der Schule zu Grossenhein* | 1709 (several later editions, 1711, 1717, 1725, 1742, 1760 (seventh)) | Berlin und Zerbst, Bey Joh. Wilhelm Meyern, und Gottfried Zimmermannen |
| Hübner, Johann (1703-1758) (son of the older Johann Hübner) | *Vollständige Geographie* | 1710-1731 (first edition, in three parts), 1733 (second edition), 1736 (third edition),1743 (fourth edition), 1745 (fifth edition), 1748 (sixth edition), 1752 (seventh edition) 1753 | 1710-1731, 1733, 1736: Hamburg: König and Richter; 1743, 1745, 1748, 1752, 1756, 1762: Hamburg: König; 1753: Frankfurt, Leipzig |

| | | | |
|---|---|---|---|
| | | (seventh edition reprint), 1756 (eighth edition), 1762 (reprint of seventh edition) | |
| Gottschling, Caspar (1679-1739) | *Versuch von einer Historie der Landkarten* | 1711 | Halle: Renger |
| Trommsdorff, Johann Samuel (1676-1713) | *Accurate Neue und Alte Geographie Von gantz Teutschland, Nach dessen zehen Craysen und in denenselben enthaltenen Königreichen, Chur-Fürsten- und Hertzogthümern* | 1711 | |
| Junker (Juncker), Christian (1668-1714) | *Anleitung zu der Geographie der mitlern [mittleren] Zeiten: in welcher zuvörderst, von der Cultur der Historiae medii aeui, in allgemeinen Anmerckungen; so dann aber von der Geographia medii aeui, in specie Teutschlandes ... gehandelt ...* | 1712 | Jena: Johann Felix Bielcke |
| Anonymous | *Kindergeographie. Das ist eine kurze und sorgfältige Anleitung, wie man auch kleinen Kindern die große Welt, und insonderheit die Erdkugel bekannt machen und beschreiben soll, nebst einem Anhange von allerhand natürlichen, politischen, häußlichen und sittlichen Dingen, und einer kurzen Zugabe von dem Catechismo* | 1713 | Helmstadt: Heinrich Hesse. |

| | | | |
|---|---|---|---|
| Gregorii, Johann Gottfried (alias Melissantes) (1685-1770) | *Curieuse Gedancken von den vornehmsten und accuratesten Alt- und Neuen Land-Charten nach ihrem ersten Ursprunge, Erfindung, Auctoribus und Sculptoribus, Gebrauch und Nutzen entworffen, auch Denen Liebhabern der Zeitungen zum Vergnügen, aus der Geographie, Historie, Chronologie, Politica und Jure Publico erläutert Und nebst kurtzen Lebens-Beschreibungen der berühmtesten Geographorum ausgefertiget. durch Johann Gottfried Gregorii, von Toba aus Thüringen* | 1713 | Franckfurt; Leipzig: Ritschel |
| Gregorii, Johann Gottfried (alias Melissantes) (1685-1770) | *Cosmographia novissima, oder allerneueste und accurate Beschreibung der ganzen wunderbaren Welt: Samt denen merckwürdigsten, curieusen und auserleseensten Sachen aus der Astronomia, Geographia, Physica, Politica, und Historia ... von den vieren Teilen der Welt, Europa, Asia, Africa, America...* | 1715 | Frankfurt and Leipzig: Verlegung Johann Christoph Stössels seel. Erben in Erffurt. |
| Hederich, Benjamin (1675-1748) | *Reales Schul-Lexicon: Worinne nicht allein Von den Laendern, Staedten, Schloessern, Meeren, Seen, Fluessen, Brunnen u. d. g. wie auch von der Zeiten, Voelckern, Geschlechten, Personen, alten Gebraeuchen und Seltenheiten, Goettern, Goettinnen und andern zur Geographie, Chronologie, Genealogie, Historie, Notitia Auctorum, den Antiquitaeten und der Mythologie gehoerigen Merckwuerdigkeiten ...* | 1717, 1731 (new edition) | 1717: Leipzig: Johann Friedrich Gleditsch; 1731: Leipzig: Johann Friedrich Gleditschens seel. Sohn |

| | | | |
|---|---|---|---|
| Müller, Johann Daniel (?-?) | *Kurtze jedoch richtige Anweisung, Wie einem jedweden, sonderlich aber der Jugend, das Fundament Der Welt-Wissenschafft, Oder Die Geographie und Universal-Historie, wie auch Die Wissenschafft Aller Religionen in der Welt, in etlichen Wochen spielend beygebracht werden könne: Deme beygefüget Die Wapen-Käntniß der Eeropäischen Könige, wie auch Alle Universitäten in Europa, mit ihrem Stifftungs-Jahre: Jn Fragen und Antwort verfasset* | 1719 | Magdeburg: Müller |
| Martini, Johann Christian (?-?) | *Kurze und deutliche Anweisung zur Neuen Staats-Geographie* | 1723 | Frankfurt, Main: Paul Lochner |
| Hauber, Eberhard David (1695-1765) | *Versuch einer umständlichen Historie der Land-Charten: sowohl von denen Land-Charten insgemein, derselben ersten Ursprung, ihrer Beschaffenheit ... als auch von denen Land-Charten eines jeden Landes ... auß denen Zeugnüssen der alten und neuen Scribenten...und nebst einer historische Nachricht von denen Land-Charten deß Schwäbischen Craißes, deß Hertzogthums Würtemberg, wie auch andern in Schwaben gelegenen Herrschaften.* | 1724 | Ulm: Daniel Bartholomai |
| Köhler, Johann David (1684-1755) | *Anleitung, zu der verbesserten Neuen Geographie: vornehmlich zum Gebrauch Der Weigelischen Land-Charten* | 1724 | Nürnberg: Christoph Weigel. |
| Leyser, Polycarp (1690-1728) | *Commentatio de vera geographiae methodo* | 1726 | Helmstedt: Paul Dietrich Schnorr |

| | | | |
|---|---|---|---|
| Hauber, Eberhard David (1695-1765) | *Nützlicher Discours, Von dem gegenwärtigen Zustand der Geographie, Besonders in Teutschland, Nebst einem Vorschlag zu noch fernerer Verbesserung derselben, ingleichem von der wahl eines vollständigen und in rechter Ordnung verfaßten Außerlesenen Atlantis, Und einer Verzeichniß derer besten so wohl alter als neuer Land-Charten, sonderlich von Teutschland, Deme angefügt Zusätze und Verbesserungen Zu seinem Versuch einer umständlichen Historie der Land-Charten* | 1727 | Ulm: Daniel Bartholomai |
| Anonymous | *Besonderes Lexicon, derer Meisten Länder, Städte, Insuln, Flüsse, und Berge, welche in der Geographie gemeiniglich vorkommen nebst Derselben Benennungen, sowohl In Teutscher, als auch Frantzösischer, Italiänischer und Spanischer, [et]c. Sprache, und wie solche, nach heutiger Manier, und üblichsten Gebrauch Lateinisch gegeben und ausgesprochen werden. Nach Alphabetischer Ordnung in möglichster Deutlichkeit vorgestellet* | 1727 | Nürnberg: Endter und Engelbrecht |
| Hering, Georg Carl (1680-1750) | *Gedancken von der Nutzbarkeit und Nothwendigkeit der Geographie, auch von der Methode und Ordnung dieselbe zu tractiren* | 1728 | Berlin: Johann Andreas Rüdiger |
| Köhler, Johann David (1684-1755) | *Entwurf eines Collegii über den gegenwärtigen Zustand von Europa: und die jetzigen Welt-Händel* | 1728 | Altdorf (near Nuremberg): Tauberischer Buchladen |

| | | | |
|---|---|---|---|
| Schmidt, Johann Jacob (1690-1757) | *Biblischer Historicus Oder Einleitung zur Biblischen Historie und deren fürnehmsten Theilen Der Geographie, Chronologie, Genealogie ...: Zu rechtem Verstande der H. Schrifft in solche kurtze doch deutliche Ordnung gebracht, und mit gründlichen Anmerckungen versehen; nebst zwiefachem vollständigen Register* | 1728 | Leipzig, Verlegts Jacob Schuster |
| Dufréne, Maximilian (1688-1768) (anonymous but identified as Dufréne, 'written by a Priest the Society of Jesus', 'Verfasset Von einem Priester erwehnter Gesellschaft') | *Rudimenta Geographica. Opusculum Quintum. Geographischer Anfang/ Oder Kurtze und leichte Weise/ Die Catholische Jugend in der Geographie zu unterrichten/ Für die Schulen der Gesellschaft Jesu in der Ober-Teutschen Provinz. Verfasset von einem Priester erwehnter Gesellschaft. Fünftes Wercklein. Cum Gratia & Privilegio Speciali Sac. Caes. & Cath. Majestatis, Ac Superium Permissu.* | 1729 | Augsburg: Mathias Wolff (Buchhändler) |
| Götz, Andreas (1698-1780) | *Kurze Einleitung zur Alten Geographie, damit so wol Die Heilige Schrift, als auch Die Griechischen und Lateinischen Historici können ohne sonderbahre Mühe und mit grössern Nutzen gelesen werden* | 1729 | Nürnberg: Zu finden bey Johann Christoph Weigels, Kunsthändlers seel. Wittib; Gedruckt bey Lorenz Bieling |
| Hauber, Eberhard David (1695-1765) | *Gedancken und Vorschläge, wie die von verschiedenen Authoren unternommene Historie der Geographie , wie auch die von ihm vorgeschlagene geographische Societät noch am füglichsten zu Stande gebracht werden möchte, ...* | 1730 | Wolfenbüttel |
| Köhler, Johann David (1684-1755) | *Kurze und gründliche Anleitung zu der alten und mittlern Geographie, nebst XII. Land-Kärtgen* | 1730-1737, 1745 (new edition), after Köhler's death: 1765-1772 (another new edition), further editions until 1778 | 1730-1737, 1745: Nürnberg: Christoph Weigels des Aeltern, Kunsthändler seel. Wittwe. Printed at Lorenz Bieling; 1765-1772: Nürnberg: Christoph Weigels des Aeltern, Kunsthändlers Seel. Wittwe. Printed at Paul Jonathan Felßecker |

| | | | |
|---|---|---|---|
| Desing, Anselm (Anselmo) (1699 - 1772) | *Kürzeste (later 'Kurzeste' and 'Kurze') Universal-Historie nach der Geographia auff der Land-Karte von der studirenden Jugend zu erlernen. (later: 'von der studirenden Jugend des Bischöfflichen Lycei zu Freysing zu erlernen').* | 1732, 1736 (new edition), 1750, 1756, 1767, 1781 (reprint after Desing's death), 1803 (with Franz Xaver Jann) | 1732: Kempten: Mayr; 1736: Augspurg; Stad am Hof, near Regenspurg: Strötter, Gastel and Ilgers; 1750, 1756, 1767: München and Stadt am Hof, near Regenspurg: Verlag Johann Gastl; 1781: Augsburg: Riegers Erben; (1803: Matthias Riegers sel. Buchhandlung) |
| Georgisch, Peter (1699-1746) | *Versuch einer Einleitung zur römisch-teutschen Historie und Geographie in chronologischer Ordnung, nebst zugehörigen Landkarten der alten und neuen Zeiten* | 1732 | Halle: Waysenhaus |
| Dufréne, Maximilian (1688-1768) (anonymous but identified as Dufréne, 'written by a Priest the Society of Jesus', 'Verfasset Von einem Priester erwehnter Gesellschaft') | *Rudimenta Geographica. Opusculum Quintum. Geographischer Anfang/ Oder Kurtze und leichte Weise/ Die Catholische Jugend in der Geographie zu unterrichten/ Für die Schulen der Gesellschaft Jesu in der Ober-Teutschen Provinz. Verfasset von einem Priester erwehnter Gesellschaft. Fünftes Wercklein. Nebst einem Anhang von der Wappen-Kunst. Cum Gratia & Privilegio Speciali Sac. Caes. & Cath. Majestatis, Ac Superium Permissu.* | 1733 | Augsburg: Mathias Wolff (Buchhändler) |
| Anonymous | *Vollständige Einleitung zur Geographischen Wißenschaft, nach der neuen und alten Zeit, nebst einer Historischen Einleitung in die Kenntnis der Reiche und Staaten der Welt, In welcher von derselben Ursprung, Fortgang und jetzigem Zustand nach der alten, mittlern und neuern Zeit gehandelt wird. Zum Gebrauch des Collegii Friderician verfertigt.* | 1736, 1750, 1756, 1760 | Königsberg: Druck und Verlag Johann Heinrich Hartungs |

| | | | |
|---|---|---|---|
| Martini, Johann Jacob (?-?) | *Neu-eingerichtete und vermehrte Bilder-Geographie von Europa, Asia, Africa und America: worinnen alle Nationen nach ihrem Habit in saubern Figuren, anbey die Länder nach ihrer Lage, Flüssen, Climate ..* | 1736, 1738 | Erffurth: Funcke |
| Pock, Edmund (?-?) | *Historisch-chronologisch-geographische Tabellen. von Anfang d. Welt bis auf das jetzt lauffende Jahr, ... in Erd- und Wasser wie auch politischen Eintheilung aller dermahl florirend bekannten Staaten u. Republiquen vorstellen* | 1736 | Augsburg: Wolff |
| Schatz, Johann Jakob (1691-1760) (also Schatzen) | *Atlas Homannianus Illustratus, Das ist: Geographische, Physicalische, Moralische, Politische und Historische Erklärung Der nach des seligen Herrn Johann Hübners Methode illuminirten Hoannischen Universal-Charten. Wodurch nicht nur Ein vollkommener Geographischer Unterricht Sondern auch eine ordentlich zusammen hangende Historie der vornehmsten Welt-Reiche nach einer neuen Einrichtung und besondern Selectu vor Augen geleget wird. Daß auch solche, die nicht studiret haben, diese beyden Wissenschaften von sich selbst gar füglich erlernen können. Alles bis auf gegenwärtige Zeit continuiret und mit den nöthigen Registern versehen.* | 1737, 1742 (second edition), 1747 (third edition), 1753 (fourth edition), 1754 | Leipzig and Eisenach: Michael Gottlieb Griesbach |
| Dufréne, Maximilian (1688-1768) (anonymous but identified as Dufréne, 'written by a Priest the Society of Jesus', 'Verfasset Von einem Priester erwehnter Gesellschaft') | *Rudimenta Geographica. Opusculum Quintum. Geographischer Anfang, Oder Kurtze und leichte Weise, die Catholische Jugend in der Historie zu unterrichten, Für die Schulen der Gesellschaft Jesu in der Ober-Teutschen Provinz. Verfasset von einem Priester erwehnter Gesellschaft. Fünftes Wercklein, Nebst einem Anhang von der Wapen-Kunst.* | 1740 (fifth edition) | Augspurg: Matthias Wolff und Sohn |

| | | | |
|---|---|---|---|
| Schatz, Johann Jakob (also Schatzen) (1691-1760) | *Erste Anfangs-Gründe der Geographie: in welchen nach Anleitung achtzehen nach des seligen Herrn Johann Hübners verbesserten Methode illuminirten Homännischen General- und Special-Charten die vornehmsten Reiche der Welt nach ihrer Lage, Eintheilung und Beschaffenheit, nach einer gantz neuen Einrichtung mit einem gantz besondern Selectu kürtzlich erkläret, und durch beygefügte Fragen zu einer bequemen Wiederholung vorgeleget werden.* ***From 1753 onwards as****: Anfangsgründe der Geographie: in welchen nach Anleitung XX. illuminirter homannischer General- und Specialcharten die vornehmste Reiche der Welt ..* | 1741, 1753/1754 (third edition), 1766 | 1741: Nürnberg: Homann; 1753/1754, 1766: Franckfurt; Leipzig; Wienn: Krauss |
| Schwartz, Albrecht Georg (?-?) | *Kurtze Einleitung zur Geographie des Norder-Teutschlandes Slavischer Nation und mittlerer Zeiten insonderheit der Fürstenthüme Pom[m]ern und Rügen aus beglaubten Geschichts-Büchern und mehrern theils urkündlichen Denckmalen beschrieben* | 1745 | Greifswald; Struck |
| Hager, Johann Georg (1709-1777) | *Ausführliche Geographie.* | 1746-1747 (first edition, in three parts), 1751 (new/second edition), 1755 (new/ third [?] edition); 1773-1774 (fourth edition) | 1746-1747, 1751, 1755: Chemnitz: Johann Christoph and Johann David Stößel; 1773: Chemnitz: Stößel; Putscher |
| Franz, Johann Michael (1700-1766) | *Homannische Vorschläge von den nöthigen Verbesserungen der Weltbeschreibungs-Wissenschaft und einer disfalls bey der Homannischen Handlung zu errichtenden neuen Akademie.* | 1747 | Nürnberg: in Verlag der Homannischen Erben, printed by Johann Joseph Fleischmann |

| | | | |
|---|---|---|---|
| Schatz, Johann Jakob (also Schatzen) (1691-1760) | *Kern der Geographie, Das ist: Kurze und deutliche Beschreibung unserer Erd-Kugel, Nach derselben vier bekannten Theilen, und den darinnen befindlichen besondern Reichen und vornehmsten Staaten; Zum Behuf der Jugend beyderley Geschlechts, und zwar Nicht nur den ersten Anfängern in dieser Wissenschaft zu einer hinlänglichen Erkänntniß, sondern auch andern zu einer beständigen Wiederholung aufgesetzt* | 1749, 1752 (second edition), 1760 (third edition), editions after Schatz's death: 1764 (fourth edition), 1766 (new edition), 1774 (new edition), 1775 (edited by Schwabe, Johann Joachim (1691-1760)); 1776 (new edition by Friedrich Wilhelm Taube (1728-1778)), 1784 (reprint of Taube's edition) | 1749: Straßburg: Beck; 1760: Straßburg: Conrad Schmidt; 1764: Leipzig and Waldenburg: Christian Gotthilf Hofmann; 1766: Leipzig; 1774: Wien: Kraus; 1775: Rostock: Kopp; 1776 and 1784: Wien: Krauß |
| Schatz, Johann Jakob (also Schatzen) (1691-1760) | *Examen Geographicum. Das ist auserlesene Fragen aus der Geographie, deren Beantwortung aus einem jeden wohleingerichteten Geographischen Systemate mag genommen werden. Zur nöthigen Wiederholung aufgesetzt, und nebst einem gründlichen und umständlichen Bericht, auf was Art und Weise die Geographie am füglichsten mag gelehret und erlernet werden. Den Liebhabern dieser Wissenschaft zum Besten an das Licht gestellet von M. Johann Jacob Schatzen, des Straßburgischen Gymnasii Gymnsiarcha, und der dasigen Universität Bibliothecario.* | 1749, 1762 (new edition), 1764 (new edition), 1766 (new edition), 1774, 1776 | 1749: Strassburg: Beck; Frankfurt and Leipzig: Johann Paul Kraus; 1766: Leipzig; 1774 and 1776: Frankurt and Leipzig: Johann Paul Kraus |
| Mayer, Tobias (1723-1762) | *Bericht von den Mondskugeln, welche bey der kosmographischen Gesellschaft in Nürnberg, aus neuen Beobachtungen verfertiget werden* | 1750 | Nuremberg: Homannsche Erben |

| | | | |
|---|---|---|---|
| Anonymous | *Beschreibung aller Länder, Völker und Städte der Erde: Mit Landkarten und Kupfer* | about ("*um*") 1750 | Halle, beim Kunsthändler Dreyßig zu haben |
| Werner, Gotthilf (1700-1785) | *Kern-Geographie, worinnen Der gantz Erd-Boden, Nach seiner mathematischen, natürlichen und politischen Eintheilung, auf eine sehr leichte und kurtze, doch hinlängliche Art, beschrieben wird; Mit einigen General-Charten gezieret, sonst aber nach dem Homannischen Schul-Atlas eingerichtet; und allen, so die Anfangs-Gründe und Haupt-Sachen dieser edlen Wissenschaft zu erlernen begierig sind* | 1751 (third edition), 1764 (fourth edition) | Leipzig, Waldenburg: Hoffmann |
| Endesfelder, Gottlieb von (?-?) | *Kurtzgefaßte Kinder-Geographie, das ist: Versuch einer Catechetischen Lehr-Art, vermittelst welcher Die Homannischen illuminirten General- und Special-Charten beuebst [!] den vornehmsten Merckwürdigkeiten der Erd-Beschreibung, bey Erlernung der Historie einem Kinde von 9. oder 10. Jahren, in kurtzer Zeit mit Lust können bekannt gemacht werden, wenn des Tages nur eine Stunde zu diesen zwo schönen Wissenschaften angewendet wird: vor Adeliche und Bürgerliche Jugend, wie auch vor junges Frauenzimmer, aufgesetzt und ans Licht gegeben /* | 1752 - 1761 | Breßlau: Korn |
| Franz, Johann Michael (1700-1766) | *Der deutsche Staatsgeographus mit allen seinen Verrichtungen Höchsten und Hohen Herren Fürsten und Ständen im deutschen Reiche: nach den Grundsätzen der kosmographischen Gesellschafft vorgeschlagen von den dirigierenden Mitgliedern der kosmographischen Gesellschaft* | 1753 | Frankfurt, Leipzig, Wien: Krauß |

| | | | |
|---|---|---|---|
| Hähn, Johann Friedrich (1710-1789) | *Kurze Erläuterung einer in Kupfer gestochenen Vorstellung des Erdbodens, worauf in XX. kleinen Charten das Nöthigste aus der Geographie, Genealogie, Chronologie, Historie, Heraldic und Numismatic für die Anfänger dieser Wissenschaften entworfen zum Gebrauch der Real-Schule in Berlin* | 1753, 1754 (second edition), 1760 (third ed), 1766 (fourth ed), 1767 (fifth ed), 1768 (sixth ed), 1774 (seventh ed), 1792 (tenth ed, after the author's death), 1795 (eleventh ed, after the author's death) | Berlin: Verlage des Buchladens der Real-Schule |
| Büsching, Anton Friedrich (1724-1793) | *Neue Erdbeschreibung* | 1754-1792, 8 editions | Hamburg: Bohn |
| Herrlich, Johann Christian (?-?) | *Kurtz zusammen gezogene sowohl Heilige Geographie, nach Anleitung der heiligen Schrift alten und neuen Testaments; als auch Heilige Chronologie, nach den vier heiligen Evangelisten ...: allen Schriftliebenden, einfältigen und angehenden Schülern zum Besten abgefasset* | 1754 | Erfurt |
| Hager, Johann Georg (1709-1777) | *Kleine Geographie vor die Anfänger* | 1755 | Chemnitz: Johann Christoph and Johann David Stößel |
| Eber, Christoph Ludwig (?-?) | *Geographisches Reise-Post- und Zeitungslexicon von Teutschland oder gesammelte Nachrichten von denen in Teutschland liegenden Städten, Marktflecken, Flecken, Schlössern, Klöstern, Dörfern u. s. w. In alphabetischer Ordnung .... Zum allgemeinen Nutzen derer Postämter, Reisenden, Kauf- und Handelsleute, und überhaupt aller Correspondenten herausgegeben* | 1756, 1775 | 1756: Jena: Johann Heinrich Schulz |

| | | | |
|---|---|---|---|
| Franz, Johann Michael (1700-1766) | *Freundliche Aufmunterung an die Weltbeschreiber ... wie durch den Beytrag derselben von der Kosmographischen Gesellschaft ins besondere die Verbesserung der Weltbeschreibung befördert werden soll* | 1756 | Leipzig:Breitkopf |
| Büsching, Anton Friedrich (1724-1793) | *Vorbereitung zur gründlichen und nützlichen Kenntniß der geographischen Beschaffenheit und Staatsverfassung der europäischen Reiche und Republiken, welche zugleich ein allgemeiner Abriß von Europa ist* | 1758, 1759 (second edition), 1761 (third edition), 1768 (fourth edition), 1776 (fifth edition), 1784 (sixth edition) | Hamburg: Bohn |
| Pfennig, Johann Christoph (1724-1804) | *Einleitung in die mathematische und physikalische Geographie nach den neuesten Beobachtungen, later continued in two volumes as: Anleitung zur Kenntniß der mathematischen Erdbeschreibung: mit hinlänglichen Betrachtungen welche die Geschichte und Güte der künstlichen Sphären, Himmels- und Erdkugeln ... zum nützlichsten Gebrauche (first volume), together with: Anleitung zur Kenntniß der physikalischen Geographie mit den neuesten Bemerkungen der neuesten und bewährtesten Naturforscher in einer neuen durchgängig verbesserten und weit um die Hälfte vermehrten Ausgabe nebst hinlänglichen Register von Joh. Christoph Pfennig, Prediger bey der St. Nikolaikirche in Stettin (second volume)* | 1758, 1765 (second edition); 1779 (third edition, first part) and 1781 (third edition, second part) | 1758, 1765: Stettin and Leipzig: Georg Matthias Drevenstädt, 1779 and 1781: Berlin and Stettin: bey G. J. Decker und H.G. Effenbart |
| Baurmeister, Heinrich Caspar (1714-1776) | *Anfangsgründe der Geographie, zum Gebrauch der Schulen entworfen* | 1760 | Braunschweig; Hildesheim: L. Schröder Erben |
| Hübner, Johann (1703-1758) (son of the former Johann Hübner) | *Johann Hübners Allgemeine Geographie aller vier Welt-Theile* | (after Hübner's death) 1761-1762, 1773 (new edition) | 1761-1762: Dresden; Leipzig: Georg Conrad Walther; 1773: Dresden: Walther |

| | | | |
|---|---|---|---|
| Osterwald, Johann Friedrich [also Osterwald, Jean Frédéric] (1663-1747) | *Herrn Friedirch Osterwalds Historische Erdbeschreibung zum Nutzen deutscher Jugend eingerichtet. Derselben sind beygefügt Anfangsgründe dieser Wissenschaft für junge Kinder, eine Einleitung in die Sphärenlehre und die Erdbeschreibung der ältern Zeiten. [In den beiden Vorberichten Hinweise auf spatiality of knowledge on a national level - Anpassung der Übersetzung an deutsche Jugend]* | after Osterwald's death: 1763, 1770 (new/second edition), 1776 (republished in Munich), 1778 (third), 1783 (republished in Munich), 1785 (fourth edition), 1791 (fifth edition) | 1763, 1770, 1778, 1785, 1791: Straßbourg: Bauer and Treuttel; 1770, 1776, 1783: München: Johann Nepomuk Fritz |
| Reccard, Gotthilf Christian (1735-1798) | *Lehr-Buch darin ein kurzgefaßter Unterricht aus verschiedenen philosophischen und mathematischen Wissenschaften, der Historie und Geographie gegeben wird: zum Gebrauch in Schulen, mit Kupfern.* | 1765, 1766, 1770, 1774, 1777, 1782-1783 | Berlin: im Verlage der Real-Buchhandlung |
| Volz, Johann Christian (1721-1783) | *Grundriß der Erdbeschreibung: als ein Anhang zu J. G. Essichs Einleitung in die Welt-Historie* | 1765, 1773 (second edition) | Stuttgart: Metzler |
| Baumann, Ludwig Adolph (1734-1802) | *Kurzer Entwurf der Geographie für Anfänger* | 1768, 1773 (second edition), 1790 (third edition) | 1768: Brandenburg [u.a.]: Gebrüder Halle: 1773: Homburg vor der Höhe: G.C. Göllner. 1790: Brandenburg: Halle |
| Pfennig, Johann Christoph (1724-1804) | *Anleitung zur gründlichen und nützlichen Kenntnis der neuesten Erdbeschreibung, nach den brauchbarsten Landkarten…* | 1769, 1777 (second edition), 1783 (third edition), 1787 (fourth edition), 1794 (fifth edition) | 1769: Berlin; Stettin: Decker; Effenbart; Winter/ 1783, 1787, 1794: Berlin; Stettin: Decker and Effenbart |
| Anonymous | *Historische Erdbeschreibung zum Gebrauche der Jugend in den Churfürstlichen Gymnasien in Baiern* | 1770, 1776, 1783 | München: Im Verlag bey Johann Nepomuk Fritz, Buchhändler nächst dem schönen Thurm |

| | | | |
|---|---|---|---|
| Chrysander, Wilhelm Christian Justus (anonymous but identified) (1718-1788) | *Vermehrtes geographisches Handbüchlein für die zarte Jugend* | 1770 (second edition), 1776 (third edition) | 1770: Mühlhausen: Leopold Andreas Beck, 1776: Langensalza: Johann Christian Martini |
| Funk, Christlieb Benedict (also Christlieb Benedikt Funck) (1736-1786) | *Anfangsgründe der mathematischen Geographie, zum Gebrauch in Schulen* | 1771 | Leipzig: Crusius (Siegfried Leberecht Crusius, printer) |
| Zeplichal, Anton Michael (1737-1806) | *Einleitung zu der bergmännischen Kenntniß des Erdballns. Erster Theil. Die Unterirdische Geographie zum Gebrauche der niedern Bergwerksschule.* | 1771, 1772 | Breslau: akademiche Buchdruckerey |
| Gerlach, Friedrich Wilhelm Anton (1728-1802) | *Kleine Erdbeschreibung: darin die Erklärung der Erdkugel, ihrer Zirkel und derer Nutzens, geometrische Ausmessungen der Erde, der Grund richtige Landkarten zu machen; der vornehmsten Oerter Lage, oder Grade ihrer Länge und Breite, und andere Eigenschaften; wie auch der Länder Lage, Klima, größte Tageslänge, Größe, Abtheilung, Fruchtbarkeit, Seltenheit, Religion, Handlung, Regierung, Macht, [et]c. enthalten sind; Zum Gebrauche der k.k. Ingenieurakademie* | 1772 | Wien: v. Ghelen |
| Niebuhr, Carsten (1733-1815) | *Beschreibung von Arabien: Aus eigenen Beobachtungen und im Lande selbst gesammleten Nachrichten* | 1772, 1774-1778 (new edition in two volumes: first vol. in 1774, second vol. in 1778) | 1772: Copenhagen: Printed in Hofbuchdruckerey Nicolaus Möller. Can be bought in Leipzig: at B. C. Breitkopf und Sohn; 1774/1778: Copenhagen: printed in Hofbuchdruckerey Nicolaus Möller |
| Zeplichal, Anton Michael (1737-1806) | *Die unterirdische Geographie: zum Gebrauch der niedern Bergwerksschule* | 1772 | Breslau: Akademische Buchdruckerey |
| Zeplichal, Anton Michael (1737-1806) | *Geographie zum Gebrauch der Gymnasien in dem Herzogtum Schlesien und der Grafschaft Glatz* | 1772, 1776, 1785 (in three parts) | 1772, 1776: Breslau: Universitaetsbuchdruckerey; 1785: Wien/Vienna: Trattner |

| | | | |
|---|---|---|---|
| Windisch, Karl Gottlieb von (1725-1793) | *Kurzgefasste Erdbeschreibung des Königreichs Hungarn* | 1772 | Pressburg: Löwen |
| Dilschmann, Johann Ludwig (1727-?) | *Grundriß der Erdbeschreibung für Anfänger* | 1773 (second edition) | Armstadt |
| Zeplichal, Anton Michael (1737-1806) | *Neueste Geographie zum Gebrauche der Jugend* | 1774, 1775 | 1774: Breslau: Universitaetsbuchdruckerey; 1775: Breslau: Korn |
| Schwabe, Johann Joachim (1714-1784) | *[Kern der Geographie] Joh. Jacob Schatzens Kern der Geographie, das ist: Kurze Beschreibung unserer Erd-Kugel, nach derselben vier bekannten Theilen ... zum Behuf der Jugend bey derley Gesellschaft,. eingerichtet von Johann Joachim Schwaben* | 1775 | Rostock: Kopp |
| Volkelt, Johann Gottlieb (1721-1795) | *Kurze Erdbeschreibung für die Jugend, nebst einer vorangesetzten Einleitung für die Anfänger* | 1775, 1791 (second edition) | 1775: Breslau, Liegnitz: Christian Friedrich Gutsch; 1791: Breslau: Christian Friedrich Gutsch |
| Westenrieder, Lorenz von (1748-1829) | *Kurze Erdbeschreibung Europäischer Staaten: Für die 1. Classe der churbaier. Gymnasien.* | 1775 | Amberg: Johann Georg Koch |
| Raff, Georg Christian (1748-1788) | *Geographie für Kinder zum Gebrauch auf Schulen. Mit einer Vorrede des Herrn Professor Feders* | 1776, 1776 (second edition), 1777 (third edition), 1779 (fourth edition), 1780 (), 1782 (second edition, reissue), 1784 (third edition), 1786 (fifth edition), 1787 (fifth edition, reissue), 1787 (fourth edition, reissue), 1788 (third edition reissue) | 1776, 1777, 1779, 1780, 1782, 1788: Göttingen: Johann Christian Dieterich; 1781 and 1786: Tübingen: Frank and Schramm; 1787: fifth edition in Tübingen: Balz & Schramm |

| | | | |
|---|---|---|---|
| Taube, Friedrich Wilhelm (1728-1778) | *Kern der Geographie: Das ist: Kurze und deutliche Beschreibung unserer Erd-Kugel, Nach derselben vier bekannten Theilen, und den darinnen befindlichen besondern Reichen und vornehmsten Staaten; Zum Behuf der Jugend beyderley Geschlechts, und zwar Nicht nur den ersten Anfängern in dieser Wissenschaft zu einer hinlänglichen Erkänntniß, sondern auch andern zu einer beständigen Wiederholung aufgesetzt / von Johann Jacob Schatzen, stark vermehret u. von d. eingeschlichenen Fehlern gereiniget durch Friedrich Wilhelm Taube.* | 1776, 1784 (reprint of Taube's edition after his death) | Wien: Krauß (im Kraußischen Buchladen) |
| Westenrieder, Lorenz von (1748-1829) | *Erdbeschreibung für die churbaierischen Realschulen* | 1776 | München |
| Anonymous | *Grundriss der Erdbeschreibung für die Anfänger* | 1776 | Berlin: Buchhandlung der Realschule |
| Schlözer, August Ludwig von (1735-1809) | *Neue Erdbeschreibung von ganz Amerika. Aus dem Englischen. 1. Theil, welcher eine allgemeine Einleitung, und das Brittische Amerika, enthält; 2. Theil, welcher das Französische, Holländische, Dänische, Portugiesische, und Spanische Amerika enthält: nebst einem Anhange vom Fünften Welttheile* | 1777 | Göttingen; Leipzig: Weygand |
| Anonymous | *Grundriss der Erdbeschreibung / Nach der zweyten Ausgabe des Füstlichen Waysenhauses zu Arnstadt.: Und ein kurzer Auszug aus den Geschichten, von Erschaffung der Welt an bis auf das Jahr Christi 1750. Aus den Vorlesungen eines erfahrnen Geschicht-Lehrers zusammen getragen* | 1777 | Philadelphia: Gedruckt und zu haben bey Henrich Miller, in der Rees-Strasse |

| | | | |
|---|---|---|---|
| Volkmann, Johann Jakob (1732-1803) | *Neues geographisches Handlexicon, oder alphabetisches Verzeichniß der vornehmsten Länder, Städte, Oerter und Flüße in allen vier Theilen der Welt: nebst einer kurzen Anzeige der vornehmsten Merkwürdigkeiten eines jeden Ortes, und warum er in der Geschichte zu merken is* | 1778 | Leipzig: im Schwickertschen Verlage |
| Gatterer, Johann Christoph (1727-1799) | *Abriss der Geographie* | 1775 (published 1778) | Göttingen: Johann Christian Dieterich |
| Kindermann, Joseph Karl (1744-1801) | *Geographischer Abriss des Herzogthums Steyermark* | 1779 | Grätz (Graz) |
| Oesfeld, Karl Ludwig von (1741-1804) | *Topographische Beschreibung des Herzogthums Magdeburg und der Graffschaft Mansfeld Magdeburgischer Hoheit* | 1780 | Berlin: Wever |
| Windisch, Karl Gottlieb von (1725-1793) | *Geographie des Königreichs Ungarn: Mit Kupfern und einer illuminirten Landkarte* | 1780-1790 | Pressburg: Löwe |
| Anonymous | *Erdbeschreibung zum Gebrauche der studirenden Jugend in den kaiserl. königl. Staaten (5 Teile)* | 1781 (four parts), second part again in 1792 | Wien/Vienna: Trattner (Trattner, Johann Thomas von Corporation; printer) |
| Kästner, Abraham Gotthelf (1719-1800) | *Mathematische Anfangsgründe II. Theil II. Abtheilung: Astronomie, Geographie, Chronologie und Gnomonie* | 1781 (thrid edition) | Göttingen: Vandenhoek |
| Anonymous | *Geographische Ausmessung der Größen, und des Inhalts aller europäisch- asiatisch- afrikanisch- und amerikanischen Kaiserthümer, Königreiche, Staaten, Republiken, Churfürstenthümer, Herzogthümer, Erz- und Bisthümer, Fürstenthümer, Grafschaften, und theils Reichstädten zugehörigen Ländereyen, nach den besten Landkarten aufgenommen, und in deutsche geographische Quadrat-Meilen ausgemessen, und eingetheilet* | 1781 | Wien: von Ghelen |
| Anonymous | *Prüfung aus der Geographie für die Schüler in der zweyten Klasse zu Salzburg* | 1782 | Salzburg: Hof- und akademische Waisenhausbuch- |

| | | | |
|---|---|---|---|
| | | | druckerei |
| Crome, August Friedrich Wilhelm (1753-1833) | *Europens Produkte: Zum Gebrauch der Neuen Produkten-Karte von Europa* | 1782 | Dessau: der Autor und in der Buchhandlung der Gelehrten zu Dessau und Leipzig |
| Fabri, Johann Ernst (1755-1825) | *Geographisches Lehrbuch für den zweyten Cursus, part nine of 'Neues Elementarwerk für die niedern Klassen laterinischer Schulen und Gymnasien. Nach einem zusammenhängenden und auf die Lesung klassischer Autoren in den obern Klassen, wie auch auf die übrigen Vorkenntnisse künftiger Studirenden gründlich vorbereitenden Plane.'* | 1782, 1788 (new edition), 1790 (reprint), 1799 (thrid edition), 1801 (reprint of third edition), 1803 (reprint of third edition) | Halle: Johann Jacob Gebauer |
| Fabri, Johann Ernst (1755-1825) | *Geographisches Lehrbuch zum Nutzen und ..* | 1782-1787 (in seven parts) | Halle |
| Gerlach, Friedrich Wilhelm Anton (1728-1802) | *Die Bestimmung der Gestalt und Grösse der Erde wie auch der Vorrückung der Nachtgleichen, Schwankung der Erdaxe, Verhältniss der Massen von Sonn, Erd und Mond, etc.* | 1782 | Wien: printed at Joan. Thom. Edl. von Trattnern, K. K. Hofbuchdrucker und Buchändler |
| Jäger, Wolfgang (1734-1795) | *Geographisch-Historisch-Statistisches Zeitungs-Lexicon* | 1782-1784 and 1791-1793 (second edition) | Nürnberg: Grattenauer |
| Kleinsorg, Raphael (1747-1821) | *Abriß der Geographie: zum Gebrauche in und ausser Schulen; nebst der besondern Geographie des Erzstift Salzburg, und einem Unterricht vom Weltgebäude, und vom Gebrauche der Globen* | 1782 (first edition), 1787 (second edition), 1797 (thrid edition) | 1782, 1787: Salzburg: Hochfürstliche Waisenhausbuchhandlung; 1797: Salzburg: Franz Xaver Duyle |
| Sulzer, Johann Georg (1720-1779) | *J. G. Sulzers Kurzer Entwurf der Geographie, Astronomie und Chronologie; Mit einer Kupfertafel* | 1782 | Berlin and Stralsund: Gottlieb August Lange |
| Watermeyer, Albrecht Anton (1737-1809) | *Statistisch-Historisch-Geographisches Handbuch zur Grundlegung der Kenntnis der Staaten und Länder und ihrer Geschichte* | 1782, 1786 (second edition) | Hamburg: Hoffmann |

| | | | |
|---|---|---|---|
| Poppe, Johann Friedrich von (?-?) | *Grundriß der Europäischen Staatengeschichte, in Verbindung der Erdbeschreibung und Staatskunde / zum Gebrauch der Schulen entworfen* | 1782 | Berlin: Hesse |
| Seybold, David Christoph (1747-1804); Ulrich, Johann Heinrich Friedrich (?-?) | *Geographie, Geschichte und Statistik der vornehmsten Europäischen Staaten* | 1782-1783 | Lemgo: Meyer |
| Forster, Johann Reinhold (1729-1798), George Forster (1754-1784) | *Bemerkungen über Gegenstände der physischen Erdbeschreibung, Naturgeschichte und sittlichen Philosophie: auf seiner Reise um die Welt gesammlet; übersetzt von George Forster (1754-1784)* | 1783, 1787 (reprint in Vienna) | 1783: Berlin: Haude and Spener; 1787: Wien/Vienna: printed at Johann Thomas Edlen von Trattnern, kaiserl. königl. Hofbuchdruckern u. Buchhändlern |
| Sprengel, Matthias Christian (1746-1803) | *Geschichte der wichtigsten geographischen Entdeckungen* | 1783, 1792 | 1783: Halle: Hemmerde; 1792: Halle: Hemmerde and Schwetschke |
| Zimmermann, Eberhard August Wilhelm von (1743-1815) | *Versuch einer Anwendung der zoologischen Geographie auf die Geschichte der Erde, nebst einer zoologischen Weltcharte* | 1783 | Leipzig: Weygandsche Buchhandlung |
| Walch, Albrecht Georg (1737-1822) | *Ausführliche mathematische Geographie: ein Lesebuch für die Jugend* | 1783 (first edition), 1794 (second edition) | Göttingen: Dieterich |
| Hummel, Bernhard Friedrich (1725-1791) | *Handbuch der alten Erdbeschreibung zum Gebrauch der eilf größern Danvillischen Landkarten: aus den besten Quellen verfaßt. Ersten Bandes erster Theil: Von Europa, welcher das erste bis zehnte Capitel enthält* | 1784-1785 (first volume;the second volume by Bruns, Paul Jakob and Ditmar, Theodor Jacob in two parts in 1784 and 1786), 1800 (second edition of the first volume) | Nürnberg: Christoph Weigel- und Schneiderische Kunst- und Buchhandlung |
| Bruns, Paul Jakob (1743-1814) and Ditmar, Theodor Jacob (1734-1791) | *Handbuch der alten Erdbeschreibung zum Gebrauch der eilf größern Danvillischen Landcharten aus den besten Quellen verfasset* | 1784-86 (first edition), 1794 (second edition) | Nürnberg: in der Christoph Weigel-Schneiderischen Kunsthandlung (Weigel and Schneider) |

| | | | |
|---|---|---|---|
| Drück, Friedrich Ferdinand (1754-1807) | *Erdbeschreibung von Asien* | 1784 | Stuttgart: Johann Benedikt Metzler |
| Forster, Johann Reinhold (1729-1798) | *Geschichte der Entdeckungen und Schiffahrten im Norden (mit neuen Originalkarten)* | 1784 | Frankfurt an der Oder: Verlegt von Carl Gottlieb Strauss |
| Glandorff, Eberhard Gottlob (1750-1794) | *Einige Beyträge zur geographischen Methode, wie die Kenntniß der Lage der Orte oder die Gränzenkunde, im Cirkel der andern Lectionen, auf Schulen beygebracht werden kan. Nebst einer kleinen Weltkarte, die blos Außenlinien der Länder, Hauptgebirge, und Hauptflüsse, aber keine Nahmen, und auch besonders zu haben ist* | 1784 | Anspach: in des Commerzsen-Commissair Haueisens privilegirten Hof-Buchhandlung |
| Hammerdörfer, Karl (1758-1794) and Kosche, Christian Traugott (1754-1789) | *Europa, Asia, Afrika, Amerika: ein geographisch-historisches Lesebuch zum Nutzen der Jugend und ihrer Erzieher* | 1784-1788 (1784, 1785, 1786, 1787, 1788) | Leipzig: Weidmanns Erben und Reich |
| Herder, Johann Gottfried (1744-1783) | *Herder, J. G. 1784. 'Von der Annehmlichkeit, Nützlichkeit und Nothwendigkeit der Geographie, 1784.' In Müller, J. G. (1810) Herder's Sämtliche Werke. Zur Philosophie und Geschichte. Zwölfter Theil. Tübingen: J. G. Cotta'sche Buchhandlung, 61-68.* | 1784 [1810] | Tübingen: J. G. Cotta'sche Buchhandlung |
| Stuck, Gottlieb Heinrich (1716-1787) | *Verzeichnis von aeltern und neuern Land- und Reisebeschreibungen. Ein Versuch eines Hauptstücks der geographischen Litteratur: Mit einem vollständigen Register, und einer Vorrede von M. Johann Ernst Fabri* | 1784-1787 (in two volumes - 1784 and 1787 - and with a supplement to the first volume in 1785) | Halle: in Johann Christian Hendels Verlage |
| Westenrieder, Lorenz von (1748-1829) | *Erdbeschreibung der baierisch-pfälzischen Staaten: zum Gebrauch einer baierisch-pfälzischen Geschichte für die Jugend und das Volk samt einer Einleitung in die allgemeine Erdbeschreibung* | 1784 | München: Johann Baptist Strobl |

| | | | |
|---|---|---|---|
| Fabri, Johann Ernst (1755-1825) | *Handbuch der neuesten Geographie für Akademien und Gymnasien: nebst einer Einleitung in die mathematische und physikalische Erdbeschreibung und einem vollständigen Register* | 1784-1785, 1787 (second edition), 1790 (third edition), 1793 (fourth edition), 1795 (fifth edition), 1797 (sixth edition), 1800 (seventh edition), 1803 (eighth edition), 1805 (ninth edition); (1819 tenth edition) | Halle: Hemmerde and Schwetschke |
| Christ, Johann Ludwig (1739-1813) | *Geschichte unsers Erdkörpers, von den ersten Zeiten der Schöpfung des Chaos an: und von den Revolutionen desselben durch Vulkane, Erdbeben und Ueberschwemmungen. Mit einem Titelkupfer.* | 1785 | Frankfurt and Leipzig |
| Crome, August Friedrich Wilhelm (1753-1833) | *Ueber die Größe und Bevölkerung der sämtlichen europäischen Staaten: Ein Beytrag zur Kenntniß der Staatenverhältnisse, und zur Erklärung der neuen Größen-Karte von Europa; Mit einer ... illuminirten Karte* | 1785 | Leipzig: in der Weygandschen Buchhandlung |
| Fabri, Johann Ernst (1755-1825) | *Kurzer Abris der Geographie* | 1785, 1786 (second edition) 15 editions between 1786 and 1817, | Halle: im Verlag des Waisenhauses |
| Jacobi, Johann Heinrich (1762-1816) | *Die Geographie in Tabellen zum Gebrauch beym Unterricht* | 1785-1786 (two volumes) | Tübingen: Cotta |

| | | | |
|---|---|---|---|
| Norrmann, Gerhard Philipp Heinrich (1753-1837) | *Geographisch und historisches Handbuch, der Länder- und Völker- und Statenkunde in beständiger Rücksicht auf physikalische Beschaffenheit, Produkte, Industrie, Aufklärung, Politik und Menschengeschichte, als ein Lehr und Lesebuch für alle Stände* | 1785, 1786, 1787, 1795, 1797, 1798 | 1785: Hamburg: Benjamin Gottlob Hoffmann |
| Reichel, Carl Gotthold (1751-1825) | *Geographie zum Gebrauch der Schulen in den evangelischen Brüdergemeinen* | 1785 | Barby, Pensylvania: in the Brethen assembly/ Brüdergemeinen; Leipzig |
| Walther, Friedrich Ludwig (1759-1824) | *Neueste Erdkunde welche Asien, Afrika, Europa, Amerika, die Südländer ... und die Polarländer nebst einem Anhange von der natürlichen und wissenschaftlichen Erdkunde ... Enthält* | 1785 | Nürnberg and Altdorf: George Peter Monath |
| Walther, Friedrich Ludwig (1759-1824) | *Erdbeschreibung des freundschaftlichen Inselmeeres in Südindien oder dem fünften Welttheile* | 1785, 1786 | Bayreuth: Johann Andreas Lübecks selige Erben; Leipzig: Weissenfels |
| Schulze, Johann Michael Friedrich (1753-1817) | *Die Erde auf eine populäre Art als Weltkörper betrachtet, Oder Versuch einer Mathematischen Geographie für das gemeine Leben: in sechs Vorlesungen* | 1785 | Halle: Gebauer |
| Heineccius, Johann Ludwig (1718-1791) | *Ausführliche topographische Beschreibung des Herzogthums Magdeburg und der Graffschaft Mansfeld, Magdeburgischen Antheils* | 1785 | Berlin: Decker |
| Crome, August Friedrich Wilhelm (1753-1833) | *Statistisch-geographische Beschreibung der sämtlichen Oestreichischen Niederlande, oder des Burgundischen Kreises: welche diese Staaten, sowohl in Ansehung ihrer Lage und natürlichen Beschaffenheit, als in Betref ihres Fabrik- und Handlungswesens, auch ihrer Religions- und Staatsverfassung, vor Augen legt: Mit einer Neuen Karte von dem ganzen Burgundischen Kreise überhaupt ...* | 1785 | Dessau; Leipzig: Göschen |

| | | | |
|---|---|---|---|
| Fabri, Johann Ernst (1755-1825) | *Geographie für alle Stände* | 1786-1808, one volume published successively in 5 parts: 1786 (first part), 1790 (second part), 1791 (third part), 1793 (fourth part), 1808 (fifth part), (more volumes had been intended) | Leipzig: im Schwickerschen Verlage (Schwickert) |
| Sulzer, Johann Georg (1720-1779) and Traue, Carl Daniel (1736-1800) | *[Vorlesungen über die Geographie der vornehmsten Länder und Reiche in Europa] Johann Georg Sulzers Vorlesungen über die Geographie der vornehmsten Länder und Reiche in Europa / Nach des Verfassers Tode bis auf unsere Zeiten fortgesezt, berichtigt und herausgegeben von Carl Daniel Traue Professor am Königl. Joachimsthalischen Gymnasium zu Berlin* | 1786 (in two parts) | Berlin: Friedrich Maurer |
| Walther, Friedrich Ludwig (1759-1824) | *Natürliche und Wissenschaftliche Erdkunde* | 1786 | Hof: Vierling |
| Wernher, P. Philipp Christian (?-?) | *Handbuch der neuesten Erd- und Völkerkunde, aus den vorzüglichsten und neuesten Quellen, mit Rücksicht auf kirchliche, politische, oekonomische, militärische und häusliche Verfassung auf Sitten und Gebräuche....* | 1786, 1787 (in two parts) | Frankfurt/Main: Andreäischen Buchhandlung |
| Brunn, Friedrich Leopold (1758-1831) | *Tabellarisches Lehrbuch der neuesten Geographie und Statistik* | 1786 | Basel: Thurneysen |
| Korabinsky, Johann Matthias (?-?) | *Geographisch-historisches und Produkten-Lexikon von Ungarn, in welchem die vorzüglichsten Oerter des Landes in alphabetischer Ordnung angegeben, ihre Lage bestimmt, und mit kurzen Nachrichten ... vorgestellt werden* | 1786 | Preßburg: Weber und Korabinsky |

| | | | |
|---|---|---|---|
| Flurl, Mathias von (1756-1823) and Pallhausen, Vincenz Pall (1759-1817) | *Geschichte und Erdbeschreibung von Pfalzbaiern für Lehrer und Schüler: Mit einer Methodenkarte.* | 1787, 1797 (second edition) | München: Joseph Lentner. |
| Köhler, Friedrich Wilhelm (1740-1798) | *Kleine Geographie von Chursachsen und den darzu gehörigen Ländern: zum Unterricht der Jugend* | 1787 (second edition) | Dresden: Hilscher |
| Schulze, Johann Michael Friedrich (1753-1817) | *Kleines Lehrbuch der natürlichen Gränz- und Länderkunde: nebst Abhandlung über Geographie und geographische Lehrmethode* | 1787 | Halle: Johann Jacob Gebauer |
| Schulze, Johann Michael Friedrich (1753-1817) | *Englisch-geographisches Lesebuch: einzweckmäßiger Auszug aus den besten Englischen Reisebeschreibungen und andern geographischen Werken; zum Gebrauch für den Unterricht in der Englischen Sprache eingerichtet..., ein Englisch-geographisches Lesebuch für Deutsche Liebhaber der Englischen Sprache und des historisch-geographischen Studiums* | 1787 | Halle: Gebauer |
| Schulz, Joachim Christoph Friedrich (1762-1798) | *Encyklopädischer Almanach für die Geschichte, Geographie, Naturforschung und Alterthumsforschung auf das Jahr 1787* | 1787 | Wien; Leipzig: Wucherer and Beer |
| Köhler, Friedrich Wilhelm (1740-1798) | *Kleine Geographie von Chursachsen und den darzu gehörigen Ländern: zum Unterricht der Jugend* | 1787 (second ed) | Dresden: Hilscher |
| Röder, Philipp Ludwig Hermann (1755-1831) | *Geographie und Statistik Wirtembergs* | 1787, 1805 | 1787: Laubach/Laibach/Laybach in Krain: Korn. 1805: Ulm |
| Reinhold, Christian L. (?-?) | *Mathematisch-politisch- und physischer Catechismus der Geographie für Lehrer und ihre Jünger nebst e. Anh. von d. Geschichte d. Schiffahrt, d. Reisen um d. Welt u. d. vornehmsten Länderentdeckungen* | 1787 | Münster u.a.; Perrenon |

| | | | |
|---|---|---|---|
| Franz, Friedrich Christian (1766-1847) | *Lehrbuch der Länder- und Völkerkunde in zween Theilen. Erster Theil; zweeter Theil. Asien, Afrika, Amerika und die neu entdekten Länder, nebst einem Register über beede Theile.* | 1788 (first part) and 1790 (second part) | 1788: Stuttgart, in der Erhardischen Buchhandlung; 1790: Stuttgart: Erhard and Löflund |
| Mannert, Conrad (1756-1834) | *Geographie der Griechen und Römer aus ihren Schriften dargestellt. Mit zwey Kärtchen* | 1788 | Nürnberg: Ernst Christoph Grattenauer |
| Röder, Philipp Ludwig Hermann (1755-1831) | *Geographisches statistisch-topographisches Lexikon von Schwaben oder vollständige alphabetische Beschreibung aller im ganzen schwäbischen Kreis liegenden Städte, Klöster, Schlösser, Dörfer, Flecken, Berge, Thäler, Flüsse, Seen, merkwürdiger Gegenden u.s.w. : mit genauer Anzeige von deren Ursprung, ehmaligen und jezigen Besizern, Lage, Regiments, Verfassung, Anzahl und Nahrung der Einwohner, Manufakturen, Fabriken, Viehstand, merkwürdigen Gebäuden, neuen Anstalten, vornehmsten Merkwürdigkeiten u.s.w.* | 1788 | Neustadt an der Aisch: Verl. für Kunstreprod., Schmidt |
| Schulze, Johann Michael Friedrich (1753-1817) | *Französisch-geographisches Lesebuch. Zum Behuf des Real-Sprachenunterrichts. [alternative subtitle:] Ein zweckmaessiger Auszug aus den besten Französischen Reisebeschreibungen und andern geographischen Werken.* | 1788 | Berlin: August Mylius |
| Bruns, Paul Jakob (1743-1814) | *Geographisches Handbuch in Hinsicht auf Industrie und Handlung; in 1793: 'Neues geographisches Handbuch in Hinsicht auf Industrie und Handlung'* | 1788 (first illegitimate edition), 1789 (first legitimate edition), 1793 (new edition) | 1788: Leipzig: Crusius; 1789, 1793: Nürnberg: Weigel and Schneider |
| Pollmächer, Christian Salomon (1762-1826) | *Versuch einer historischen Geographie Kursachsens und seiner Beilande: aufgesetzt für diejenigen Liebhaber der Vaterlandsgeschichte, welche dieselbe ohne mündlichen Unterricht erlernen wollen* | 1788-1789 | Dresden, bey Johann Samuel Gerlach, 1788-1789 |

| | | | |
|---|---|---|---|
| Gaspari, Adam Christian (1752-1830) | *Ueber den methodischen Unterricht in der Geographie und die zweckmäßigen Hilfsmittel dazu* | 1789 (first edition), 1791 (second edition), 1796 (third edition), 1800 (fourth edition), 1819 (fifth edition) | Weimar: Industrie-Comptoir (also as Landes-Industrie-Comptoir; 1805 Geographisches Insititut) |
| Gatterer, Johann Christoph (1727-1799) | *Kurzer Begriff der Geographie* | 1789 (in two volumes), 1793 (second edition) | Göttingen: Johann Christian Dieterich |
| Keyser, Georg Adam (1764-1814) | *Allgemeine Dorf-Geographie von Deutschland oder alphabetische Beschreibung der Dörfer, Flecken, Stifter, Klöster, Schlösser, Festungen, Herrschaften, Ritter- und Landgüter ... nach ihrer Lage, wem zu welchem Kreiß, Aemtern oder Gerichten sie gehören ...* | 1789-95 | Erfurt: Keyser |
| Kosche, Christian Traugott (1754-1789) | *Karakter, Sitten und Religion aller bekannten Völker unsers Erdbodens. Ein Handbuch für die Jugend und ihre Erzieher. Erster Band: Die Amerikaner, Zweiter Band: Die Asiater, Dritter Band: Die Afrikaner* | 1789-1791, three volumes: 1789, 1790, 1791 | Leipzig: Johann Friedrich Junius |
| Kosmann, Johann Wilhelm Andreas (1761-1804) | *Handbuch der alten Erdbeschreibung: Für angehende Erzieher und studirende Jünglinge. Erstes Bändchen, welches Aegypten enthält* | 1786 | Breslau; Brieg and Leipzig: Christian Friedrich Gutsch |
| Müller, Johann Georg (1759-1819) | *Versuch über das Ideal einer Erdbeschreibung. In Philosophische Aufsätze, p. 121-148 (1789)* | 1789 | Breslau: Gottlieb Löwe (printed in Berlin: Johann Georg Landhoff) |
| Nitsch, Paul Friedrich Achat (1754-1794) | *Kurzer Entwurf der alten Geographie* | 1789, 1792 (second edition) | Leipzig: J. G. Heinsius und Sohn |
| Preuschen, August Gottlieb (1734-1803) | *Geographisches Taschenbuch auf italienischen Reisen: mit einer Theorie von Erdbeben zu genauer Beobachtung vulkanischer Stellen und Phänomene* | 1789 | Heidelberg: Pfähler |

| | | | |
|---|---|---|---|
| Dacheröden, Ernst Ludwig Wilhelm von (1764-1806) | *Von den Verdiensten der Römer um die Ausbreitung und Berichtigung der Erdkunde oder Geographie* | 1789 | Erfurt: Keyser |
| Witschel, Johann Ephraim (?-?) | *Geschichte und Geographie von Deutschland: ein Lehr- u. Lesebuch für die Jugend* | 1789-1790 | Dresden; Leipzig: Verf. u. Hilscher, |
| Sebaldt, Georg Friedrich (1736-1801) | *Kurze Einleitung in die Historie und Geographie, als ein bequemes Lehrbuch für junge Anfänger in niedern Schulen, nützlich zu gebrauchen und daher auf die leichteste Art entworfen* | 1780 (third edition) | Nürnberg: in der Gißbreckischen Buchhandlung |
| Lebrecht, Michael (1757-1807) | *Versuch einer Erdbeschreibung des Grossfürstenthums Siebenbürgen* | 1789 | Herrmannstadt: Hochmeister |
| André, Christian Carl (1763-1831) | *M. Georg Christian Raff's Geographie für Kinder zum Gebrauch auf Schulen. Georg Christian Raff. Nach d. Verf. Tode durchgesehen, verbessert und herausgegeben von Christian Carl Andre.* | 1790 and 1792 (second part), 1806 (second edition) | Göttingen: Dieterich |
| André, Christian Carl (1763-1831) | *Über den Unterricht in der Geographie. An alle Besitzer der Raff'schen Schriften, besonders Schulmänner und Kenner zur Rechtfertigung meines Planes bey der Umarbeitung derselben.* | 1790 | Göttingen: Johann Christian Dieterich |
| Canzler, Friedrich Gottlieb (1764-1811) | *Abris der Erdkunde nach ihrem ganzen Umfang: zum Gebrauch bey Vorlesungen* | 1790-1791 | Göttingen: Vandenhoek and Ruprecht |
| Dassel, Christian Konrad Jakob (1768-1845) | *Vorschlag zu einer neuen Methode, sowohl des schriftlichen als muendlichen geographischen Unterrichts, um, neben der bloßen Anfüllung des Gedächtnisses auch den Verstand aufzuklären und das Herz zu bilden.* | 1790 | Halle: Buchhandlung des Waisenhauses |
| Galletti, Johann Georg August (1750-1828) | *Lehrbuch der Geographie oder Erdkunde* | 1790, 1804 (new edition), 1807 (reprint of new edition), 1812 (third edition) | Gotha: Carl Wilhelm Ettinger |
| de Luca, Ignaz (1746-1799) | *Geographisches Handbuch von dem Oesterreichischen* | 1790-1792 (in five | Wien: Degen |

| | | | |
|---|---|---|---|
| | *Staate* | volumes) | |
| Pfennig, Johann Christoph (1724-1804) | *Kurzer Entwurf der neuesten Geographie nach ihren 5 Theilen zum Unterricht für Anfänger* | 1790 | Stettin |
| Bellermann, Johann Joachim (1754-1842) | *Biblische Geographie (2. Teil des Handbuchs fuer biblische Literatur)* | 1790 | Erfurt: Keyser |
| Anonymous | *Kurze Geographie von Asia, Afrika, Amerika und den Südländern: Versuch einer Fortsetzung von Raffs Geographie für Kinder* | 1790 | Nürnberg: Bieling, Francfurt [u.a.] |
| Herzberg, David Georg Friedrich (1763-1822) | *Kurzer Abriß der Geographie der Königl. Preuss. Staaten. entworfen von Friedrich Herzberg, Inspector des königl. Churmärkischen Landschullehrer und Küster-Seminars. Besonders zum Gebrauche in vaterländischen Schulen* | 1790 | Berlin: Verlag der Buchh. der Königl. Realschule |
| Bruns, Paul Jakob (1743-1814) | *Versuch einer systematischen Erdbeschreibung der entferntesten Welttheile Afrika, Asien, Amerika und Südindien* | 1791-1799 | Frankfurt Main: J. G. Fleischer, 1791-1798 (volumes 1-5) and Nürnberg: Schneider u. Weigel, 1799 (volume 6) |
| Dassel, Christian Konrad Jakob (1768-1845) | *Geographische Lehrbuch zum Nutzen und Vergnügen für Kinder und Kinderlehrer, in geographischer Ordnung, um nebst der Anfüllung des Gedächtnisses, auch den Verstand aufzuklären und das Herz zu bilden* | 1791 | Halle: Buchhandlung des Waisenhauses. |
| Engel, Moritz Erdmann (1767-1836) | *Neues Handbuch der Geographie mit den nöthigsten statistischen und historischen Erläuterungen für die Jugend und Freunde der Erdkunde* | 1791 | Leipzig: Friedrich Schneider. |
| Jacobi, Johann Heinrich (1762-1816) | *Allgemeine Übersicht der Geographie, Statistik und Geschichte sämmtlicher Europäischen Staaten: ein Lehr- und Lesebuch für Akademien und Gymnasien* | 1791-1792 | Riga; Leipzig: Johann Friedrich Hartknoch |
| de Luca, Ignaz (1746-1799) | *Landeskunde von Oesterreich ob der Enns* | 1791-1792 | Linz and Wien: Hoffmeister |

| | | | |
|---|---|---|---|
| Röder, Philipp Ludwig Hermann (1755-1831) | *Geographisches statistisch-topographisches Lexikon von Schwaben: oder vollständige alphabetische Beschreibung aller im Schwäbischen Kreis liegenden Städte, Klöster, Schlösser, Dörfer, Flecken, Höfe, Berge, Thäler, Flüsse, Seen, merkwürdiger Gegenden usw. ; mit genauer Anzeige von deren Ursprung, ehmaligen und jezigen Besizern, Lage, Regimentsverfassung, Anzahl und Nahrung der Einwohner, Manufakturen, Fabriken, Viehstand, merkwürdigen Gebäuden, neuen Anstalten, vornehmsten Merkwürdigkeiten usw.* | 1791-1792 | Ulm: im Verlag der Stettinischen Buchhandlung |
| Niemann, August (1761-1832) | *Sammlungen für die Forst-Geographie oder Nachrichten von der wilden Baumzucht und Forstwirthschaft einzelner Länder aus neuern Reise- und Länderbeschreibungen entlehnt: ein Lesebuch für Forstmänner und Freunde des Waldes* | 1791 | Altona: Hammerich |
| Sonntag, Karl Gottlob (1765-1827) | *Das Russische Reich, oder Merkwürdigkeiten aus der Geschichte, Geographie und Naturkunde aller der Länder, die jetzt zur Russischen Monarchie gehören* | 1791-1792 | Riga: Johann Friedrich Hartknoch |
| Liechtenstern, Joseph Marx von (1765-1828) | *Statistisch - geographische Beschreibung des Erzherzogthums Oestreich unter der Ens. Erster Theil der Beiträge zur genauen Kenntniß der österreichischen Staaten und Provinzen* | 1791 | Wien: Kleinmaier; Leipzig |
| Cuno, Johann Karl Gottlob (1759-1808) | *Geographie der Preussischen Staaten: Besonders für die Jugend* | 1791, 1797 (second edition) | Breslau; Brieg |
| Anonymous | *Taschenbuch für Fuhrleute und Kutscher, oder kurze Anleitung zu Heilung der gewöhnlichen Krankheiten und Zufälle, denen Pferde, sonderlich auf Reisen, unterworfen sind: Nebst einem Anhang* | 1792 | Stuttgart: Christoph Friedrich Cotta |

| | | | |
|---|---|---|---|
| Ebeling, Daniel Christoph (1741-1817) | *Erklärung einer neuen Karte von Frankreich nach dessen jezziger Eintheilung in 83 Departementer: Nebst einer illuminirten Karte und einer Tabelle über die Vertheilung der Grundsteuer und Mobiliarabgabe* | 1792 | Hamburg: Herold |
| Gaspari, Adam Christian (1752-1830) | *Lehrbuch der Erdbeschreibung: zur Erläuterung des neuen methodischen Schulatlasses* | 1792-1816 (about eleven editions), 1792 (first edition, first part), 1793 (first edition, second part), 1796 (third edition), 1799 (fourth edition), 1801 (fifth edition), 1803 (sixth edition), 1806 (eighth edition), 1809 (tenth edition), 1811 (eleventh edition) [seven, nine?] | Weimar: Industrie-Comptoir (also as Landes-Industrie-Comptoir; 1805 Geographisches Insititut) |
| Müller, Johann Carl (1748-); Forbiger, Gottlieb Samuel (1751-1828) | *Geographische Beschreibung von ganz Frankreich nach seiner jetzigen Eintheilung und Beschaffenheit. Verbessert durch Gottlieb Samuel Forbiger* | 1792 | Leipzig: Klein |
| Parrot, Christoph Friedrich (1751-1812) | *Versuch einer vollständigen, gemeinfasslichen und populären Einleitung in die mathematisch-physische Stern- und Erdkunde. Mit 12 Kupfertafeln* | 1792 | Bayreuth: Verlag der dasigen Zeitungs-Druckerey |
| Preuschen, August Gottlieb (1734-1803) | *Geographisches Taschenbuch auf nordischen Reisen* | 1792 | Frankfurt, Leipzig |

| | | | |
|---|---|---|---|
| Reilly, Franz Johann Joseph von (1766-1820) | *Allgemeine Erdbeschreibung: Geschöpft aus Büsching, Fabri, Bruns und andern Erd- und Reisebeschreibern. Herausgegeben von Franz Johann Joseph von Reilly, in three volumes* | 1792-1793 | Wien/Vienna: Reilly |
| Weddigen, Peter Florens (1758-1809) | *Geographisches Handbuch für Kaufleute* | 1792-1794 (in two volmues) | Lemgo: Mayer (Mayerische Buchhandlung) |
| Milcke, Christian Benedikt (1712-1788) | *Geographie, tabellarisch eingekleidet zum Schul-Gebrauch* | 1792 | Leipzig und Altona: Kaven |
| Villaume, Peter (1746-1806) | *Geographie und Geschichte für die Jugend der Bürger und für Bürgerschulen* | 1792 | Leipzig: G. J. Göschen |
| Finke, Leonhard Ludwig (1747-1828) | *Versuch einer allgemeinen medicinisch-praktischen Geographie, worin der historische Theil der einheimischen Völcker- u. Staaten-Arzneykunde vorgetragen wird* | 1792-1795 | Leipzig: Weidmann |
| Ebeling, Daniel Christoph (1741-1817) | *Erdbeschreibung und Geschichte von Amerika. Die vereinten Staaten von Nordamerika (part 13 and 14,1 of the continuation of Büsching's Erdbeschreibung continued after Büsching's death), in eight volumes* | 1793-1816, 7 volumes: 1793 (first volume), 1794 (second volume), 1796 (third volume), 1797 (forth volume), 1799 (fifth volume); 1800 (second edition); 1806 (sixth volume); 1808 (another new edition), 1816 (seventh and eights volume); | Hamburg: Bohn (Johann Carl Bohn, and then Carl Ernst Bohn) |
| Hammerdörfer, Karl (1758-1794) | *Geographie und Statistik der ganzen östreichischen Monarchie* | 1793 | Leipzig: Voß und Leo |
| Hartmann, Johann Dietrich (1762-1831) | *Kurzer Abriß der neuesten Erdbeschreibung zum Gebrauche in Schulen* | 1793, 1794 (second edition) | 1793: Leipzig: Breitkopf; 1794: Frankfurt and Leipzig |

| | | | |
|---|---|---|---|
| Franz, Friedrich Christian (1751-1828) | *Kleine Geographie von Wirtemberg: mit einer allgemeinen Einleitung in die Erdbeschreibung und einem Anhang von Mömpelgard und Limpurg; Zum Gebrauch in Schulen.* | 1793 (first edition), 1796 (second edition) | 1793: Stuttgart: Ehrhard, 1796: Tübingen: Cotta |
| Reuss, Franz Ambrosius (1761-1830) | *Mineralogische Geographie Von Böhmen* | 1793-1797 | Dresden: in der Waltherischen Hofbuchhandlung |
| Dassel, Christian Konrad Jakob (1768-1845) | *Ueber den Nutzen und die Methode des geographischen Unterrichts für Frauenzimmer, nebst dem Plan eines eigenen geographischen Lehrbuchs fürs weibliche Geschlecht.* | 1794 | Hannover: Gebrüder Hahn |
| Höpfner, Johann Georg Christian (1765-1827) | *P. F. A. Nitsch's Wörterbuch der alten Geographie: nach den neuesten Berichtigungen zusammengetragen herausgegeben und fortgesetzt von J. G. C. Höpfner* | 1794 | Halle: Gebauer |
| Schlichthorst, Hermann (1766-1820) | *Handbuch der alten Erdbeschreibung nach ihren vorzüglichsten Theilen zum Schulgebrauch.* | 1794 | Bremen: Friedrich Wilmans |
| Sotzmann, Daniel Friedrich (1754-1840) | *Lehrbuch der neuesten Erdbeschreibung, für öffentliche und Privat-Schulen / nach Wilhelm Guthrie frei bearbeitet. Nebst ... geographischen Karten entworfen von D. F. Sotzmann ..* | 1794-1796 (1794, 1795, 1796) | Berlin: Königlich-Preußische Akademische Kunst- und Buchhandlung |
| Sotzmann, Daniel Friedrich (1754-1840) | *Lehrbuch der neuesten Erdbeschreibung, für öffentliche und Privat-Schulen, nach Wilhelm Guthrie frey bearbeitet, nebst 12 geographischen Karten* | 1794-1795 (one volume in each year) | Berlin: Königl. Preuß. Akad. Kunst- und Buchhandlung |
| Wilmsen, Friedrich Phillip (1770-1831) | *Lehrbuch der Geographie: für Anfänger in dieser Wissenschaft* | 1794 | Berlin and Stralsund: August Gottlieb Lange |
| Fischer, Johann Carl (1760-1833) | *Anfangsgründe der optischen und astronomischen Wissenschaften: oder die Optik, Perspektiv,Catoptrik, Dioptrik, Astronomie, Geographie, Chronologie und Gnomonik / Zum Gebrauch der Vorlesungen aufgesetzt von* | 1794 | Jena: Cröker |

| | | | |
|---|---|---|---|
| Alberti, Ignaz (1731-1794) | *Allgemeinnütziges Geschicht- und Staaten-Wörterbuch: woraus man nicht nur eine hinlängliche Kenntniß von allen Reichen und Staaten, ihrer Lage ... u. s. w. erlangt, sondern auch mit der alten Geographie und Götterlehre, ... bekannt wird; vorzüglich zum Nutzen und zur Bequemlichkeit der Zeitungsleser in alphabetische Ordnung gebracht* | 1794 | Wien: Ignaz Alberti, k. k. priv. Buchdrucker |
| Kraußkopff, Johann Aegidius (?-?) | *Geographie und Staatistick der Hessen Casselischen Landen. In Fragen und Antworten verfasset zum Nutzen der Jugend und Unterhaltung für Liebhaber dieser Wissenschaft* | 1794 | Marburg: Bayrhoffe |
| Kästner, Abraham Gotthelf (1719-1800), Bruns, Paul Jakob (1743-1814), and Zimmermann, Eberhard August Wilhelm von (1743-1815) | *Uebersicht der Fortschritte verschiedener Teile der geographischen Wissenschaften seit dem letzten Drittel des jetzigen Jahrhunderts bis 1790* | 1795 | Braunschweig |
| Schmidt, Carl Benjamin (1763-?) | *Vorschläge zur Methodik in der Geographie für Anfänger und Geübte. Ein Handbuch für Lehrer in Bürgerschulen.* | 1795 | Danzig: Ferdinand Troschel |
| Wahl, Samuel Friedrich Günther (1760-1834) | *Altes und neues Vorder- und Mittel-Asien oder pragmatisch-geografische, fysische und statistische Schilderung und Geschichte des Persischen Reichs von den ältesten Zeiten bis auf diesen Tag* | 1795 | Leipzig: Crusius |
| Riem, Andreas (1749-1814) | *Geographie zum Unterricht in Schulen und Erziehungsanstalten* | 1795 | Berlin: Nauck |
| Knös, Franz (?-?) | *Gedanken über den allgemeinen Nuzzen der Geographie und eine zweckmäßige Lehrmethode derselben auf Schulen* | 1785 | Giessen: Braun |

| | | | |
|---|---|---|---|
| Bruns, Paul Jakob (1743-1814); Paulus, Heinrich Eberhard Gottlob (1761-1851); Heeren, Arnold Hermann Ludwig (1760-1842) | *Handbuch der alten Erdbeschreibung zum Gebrauch der eilf größeren Danvileischen Karten* | 1796-1800 (third edition) | Nürnberg: Weigel |
| Engel, Moritz Erdmann (1767-1836) | *Fortsetzung der Allgemeinen Welthistorie* | 1796-1804 | Halle: Johann Jacob Gebauer |
| Wilmsen, Friedrich Phillip (1770-1831) | *Fragen zur angenehmen und nützlichen Wiederholung des Geographischen Unterrichts: Ein Anhang zum Lehrbuche der Geographie* | 1796 | Berlin and Stralsund: August Gottlieb: Lange |
| Wilmsen, Friedrich Phillip (1770-1831) | *Materialien für den Unterricht in der Geographie: Ein Hülfsbuch für angehende Schul- und Hauslehrer* | 1796 | Berlin and Stralsund: August Gottlieb: Lange |
| Vierthaler, Franz Michael (1758-1827) | *Geographie von Salzburg: zum Gebrauche in unsern Schulen* | 1796 | Salzburg: Mayr |
| Weigang, Johann Karl Gottlob Wilhelm (?-?) | *Geographie in Versen, ein ersprießliches Hülfsmittel für die Jugend zur leichten Erlernung der Geographie. Nach Belieben am Klavier zu singen* | 1796 | Schweidnitz: Müller |
| Gaspari, Adam Christian (1752-1830) | *Vollständiges Handbuch der neuesten Erdbeschreibung* | 1797 (first volume), 1799 (second volume, part one), 1801 (second volume, part two), 1805 (fourth volume) [originally six volumes intended, according to the preface of 1797] | Weimar: Industrie-Comptoir (also as Landes-Industrie-Comptoir; 1805 Geographisches Insititut) |
| Bartholy, Georg Wilhelm (1765-1815) | *Anleitung zur mathematischen, physischen und Staats-Geographie* | 1797, 1801, 1805 | Berlin: Oehmigke d. Jüng |

| | | | |
|---|---|---|---|
| Anonymous (in Bischöfliches Gymnasium Josephinum Hildesheim) | *Gegenstände der Religionslehre, Arithmetik, Geographie, Geschichte und Orthograpphie, über welche sich die Schüler der ersten Klasse im Fürstbischöflichen Gymnasium zu Hildesheim im Julius des Jahrs 1797. der öffentlichen Prüfung unterwerfen werden.: Namen der Schüler. ...* | 1797 | Hildesheim: Schlegel |
| Parrot, Christoph Friedrich (1751-1812) | *Neue, vollständige und gemeinfaßliche Einleitung in die mathematisch-physische Astronomie und Geographie: Mit 12. Kupfertafeln und 6. Tabellen / von Christoph Friedrich Parrot, der Weltweisheit Doctor und Professor auf der Königl. Preußis. Universität zu Erlangen und der philosophischen Facultät Adjunct* | 1797 | Hof: Gottfried Adolph Grau |
| Lorenz, Johann Friedrich (1738-1807) | *Elemente der astronomischen Wissenschaften oder der Astronomie, Geographie, Gnomonik und Chronologie* | 1797 | Leipzig: Müller |
| Hausius, Karl Gottlob (1754-1825) | *Geographisches Handbuch für die Jugend und Liebhaber der Geographie* | 1797 | Leipzig |
| Anonymous | *Geographie für Kinder zum Gebrauch in Schulen: von Europa, besonders von Hessen* | 1797 (sixth edition) | Hersfeld: Mohr |
| Mannert, Conrad (1756-1834) | *Kurzer Entwurf der alten Geographie. Von Paul Friedrich Achat Nitsch. Aufs neue verbessert herausgegeben von Conrad Mannert* | 1798 (third edition), 1802 (fourth), 1807 (fifth), 1810 (sixth) | 1798, 1802, 1807: Leipzig: Johann Samuel Heinsius; 1810: Leipzig: Johann Friedrich Gleditsch |

| | | | |
|---|---|---|---|
| Gedike (Gedicke), Friedrich (1754-1803) | *'Gedanken über die Methode beim geographischen Unterricht. (Einladungsschrift zur Einführung des Verfassers als Direktor des Friedrichswerderschen Gymnasiums den 29ten September 1779.' In Unger, J. F. (ed) Gesammlete Schulschriften von Friedrich Gedike. Bd. 1 (Vol. 1) Königl. Preußischem Oberkonsistorial- und Oberschulrath, und Direktor des vereinigten Friedrichswerderschen und Friedrichsstädtischen Gymnasiums.* | given in 1779, printed and published in 1798 | Berlin: Johann Friedrich Unger. |
| Rumpf, Johann Daniel Friedrich (1766-1838), Bartholdy, Georg Wilhelm (1765-1815) | *Gallerie der Welt in einer bildlichen und beschreibenden Darstellung von merkwürdigen Ländern, Völkern, Thieren, Natur- und Kunsterzeugnissen, von Ansichten der schönen und erhebenen Natur, von alten und neuen Denkmalen und beständiger Rücksicht auf Beförderung der Humanität und Aufklärung* | 1798-1804, 1808 new edition (then by Rumpf, Johann Daniel Friedrich (1766-1838); Lehmann, Gustav Adolf (1942-) | Berlin: Oehmigke dem Jüngern |
| Sotzmann, Daniel Friedrich (1754-1840) | *Geographie und Statistik der deutschen Churfürstenthümer: ein Lesebuch für die Jugend u. ihre Erzieher* | 1798 | Berlin: Verlag der Königl. Akadem. Kunst- u. Buchhandlung |
| Sotzmann, Daniel Friedrich (1754-1840) | *Chur-Sachsen, ein geographisch-statistisches Lesebuch für die Jugend und ihre Erzieher: mit einer Karte der sämmtlichen Chursächsischen Länder* | 1798 | Berlin: Verlag der Königl. Akadem. Kunst- u. Buchhandlung |
| Vierthaler, Franz Michael (1758-1827) | *Beyträge zur Geographie und zur Geschichte derselben: Erster und zweyter Theil* | 1798 | Salzburg: bey Fr. Xav. Duyle, Hof- und akademischen Buchdrucker und Buchhändler |

| | | | |
|---|---|---|---|
| Vega, Georg von (1756-1802) | *[Mathematische Betrachtungen über eine sich um eine unbewegliche Achse gleichförmig drehende feste Kugel, und die Folgen dieser Voraussetzung für Astronomie, Geographie und Mechanik, in Beziehung auf unser Erdphäroid] Georg Vega's, Ritters des militärischen Marien-Theresien-Ordens, Majors und Professors der Mathematik des k. k. Artilleriecorps u.s.w. Mathematische Betrachtungen über eine sich um eine unbewegliche Achse gleichförmig drehende feste Kugel, und die Folgen dieser Voraussetzung für Astronomie, Geographie und Mechanik, in Beziehung auf unser Erdphäroid: Mit 1. Kupfer* | 1798 | Erfurt: Beyer & Maring |
| Meinert, Friedrich (1757-1828) | *Lehrbuch der gesammten Kriegswissenschaften für Offiziere bei der Infanterie und Kavallerie. Bd. 1: Die nöthigen Kenntnisse aus der mathematischen Geographie in Verbindung mit der Lehre von Aufnehm. u. Zeichen d. Entwürfe einzelner Thl. militär. Situation* | 1798 | Halle: Hemmerde und Schwetschke |
| Schultes, Johann Adolph (1744-1821) | *Historische Schriften und Sammlungen ungedrukter Urkunden, zur Erläuterung der deutschen Geschichte und Geographie des mittlern Zeitalters* | 1798-1801 | Hildburghausen: Johann Gottfried Hanisch |
| Kindermann, Joseph Karl (1744-1801) | *Repertorium der steiermärkischen Geschichte, Geographie, Topographie, Statistik und Naturhistorie* | 1798 | Graz |
| Bruns, Paul Jakob (1743-1814) | *Neue Systematische Erdbeschreibung von Africa. In sechs Theilen* | 1799 (six volumes) | Nürnberg: in der Kais. privil. Kunst- und Buchhandlung bei Adam Gottlieb Schneider und Weigel |
| Hartmann, Johann Melchior (1764-1827) | *Das Paschalik Aegypten* | 1799 | Hamburg: Bohn |

| | | | |
|---|---|---|---|
| Sotzmann, Daniel Friedrich (1754-1840) | *Geographisch-statistisches Repertorium zu des Herrn Geh. Kr. Sekret. Sotzmanns neu entworfenen Generalkarte von den sämmtlichen Königl. Preußischen Staaten in alphabetischer Ordnung; von dem Verfasser des Lehrbuchs der neuesten Erdbeschreibung nach Wilhelm Guthrie. Erste Abtheilung, welche alle Königl. Preußische Staaten, die nicht zum deutschen Reichskörper gehören, enthält.* | 1799 | Berlin: Im Verlage der Königl. Akademie der Kunst- und Buchhandlung. |
| Anonymous | *Kurzgefaßte Geographie der Römer und Griechen: aus den besten Quellen ingleichen nach D'Anville Landkarten und dessen Handbuch der alten Erbeschreibung zum Gebrauche für Schulen verfaßt* | 1799 | Nürnberg: Schneider und Weigel |
| Brause, Johann Friedrich Gottlob von (1765-1820) | *Unterricht in den Anfangsgründen der Geographie, der Zeit- und Sternkunde, der Erdbeschreibung des gelobten Landes, und der Geschichte des jüdischen Volks und der Religion: zum Gebrauch der Bürger- und Landschulen in Frage und Antwort verfasset* | 1799, 1809 (second edition) | Leipzig: Feind |
| Bellermann, Johann Joachim (1754-1842) | *Beschluß der bibl. Geographie: Afrika; nebst dem Register über diese vier Theile* | 1799 | Erfurt: Keyser |
| Fabri, Johann Ernst (1755-1825) | *Abriß der natürlichen Erdkunde insonderheit Geistik in ausführlicher Darstellung für Akademien und Gymnasien* | 1800 | Nuremberg: Gustav Philipp Jakob Vierling |
| Funke, Carl Philipp (1752-1807), with several other scholars (anonymous) | *Neues Real-Schullexicon: enthaltend die zur Erklärung der alten Klassiker nothwendigen Hülfswissenschaften, vornämlich Geographie, Geschichte, Philosophie, Alterthümer und Mythologie/ in Verbindung mit einigen Gelehrten herausgegeben von C[arl] P[hilipp] Funke.* | 1800-1805 (in five volumes); 1805-1807 (reprint) | 1800-1805: Braunschweig: Schulbuchhandlung; 1805-1807: Wien; Prag: Franz Haas |

| | | | |
|---|---|---|---|
| Manitius, Friedrich Heinrich Wilhelm (1778-1878) | *Versuch eines Leitfadens für den Lehrer und für den Anfänger in der Geographie bei der schriftlichen Wiederholung.* | 1800 | Halle: Hendel |
| Otto, Johann Friedrich Wilhelm (1743-1814) | *Versuch einer physischen Erdbeschreibung nach den neuesten Beobachtungen und Entdeckungen* | 1800 | Berlin: G. C. Nauck (printed at G. Hayn) |
| Holsche, August Karl (1749-1830) | *Geographie und Statistik von West-, Süd- und Neu-Ostpreußen: nebst einer kurzen Geschichte des Königreichs Polen bis zu dessen Zertheilung. Nebst einer Charte von West-, Süd- und Neu-Ostpreußen* | 1800-1807 | Berlin: Maurer |
| Anonymous | *Beschreibung aller Länder und Völker der Erde: zur Belehrung und Unterhaltung* | 1800 | Halle: Dreyssig |
| Bredow, Gabriel G. (1773-1814) | *Untersuchungen über einzelne Gegenstände der Alten Geschichte, Geographie und Chronologie* | 1800-1802 | Altona: Hammerich |
| Kant, Immanuel (1724-1804) edited by Vollmer, Johann Jakob (?-?) | *Immanuel Kants physische Geographie* | 1801-1805 (in four parts, each with two subparts except for part 4) | Hamburg and Mainz: Gottfried Vollmer |
| Anonymous | *Erstes Schulbuch der Geographie. Nach einer ganz neuen Lehrart eingerichtet und mit ganz neuen Charten, welche auch besonders verkauft werden; nebst einem Bericht über deren Gebrauch.* | 1801 | Cleve |
| Venturini, Georg (1772-1802) | *Lehrbuch der militärischen Geographie der östlichen Länder am Nieder Rhein in 4 Bänden* | 1801 | Kopenhagen |
| Venturini, Georg (1772-1802) | *Lehrbuch der Militair-Geographie der östlichen Rheinländer: In zwei Theilen* | 1801-1802 | Kopenhagen; Leipzig: Schubothe |
| Karrer, Philipp Jakob (1762-1836) | *Historische Geographie für Kaufleute, Manufakturisten und Fabrikanten* | 1801 | Leipzig: Stagesche Buchhandlung in Augsburg |
| Baentsch, Lebrecht Ludwig (1768-) | *Handbuch der Geographie und Geschichte des gesammten Fürstenthums Anhalt, zum Schul- und Privatunterricht entworfen* | 1801 | Leipzig: zu haben beim Verfasser in Dessau |

| | | | |
|---|---|---|---|
| Eiselen, Georg Philipp (?-?) | *Kleinste Geographie vom Herzogthum Würtemberg oder Hülfs-Büchlein für Kinder: in interessanten und nüzlichen Nachrichten von ihrem Vaterland* | 1801 | |
| Hassel, Johann Georg Heinrich (1768-1829) and Bege, Karl Friedrich (1768-1849) | *Geographisch-statistische Beschreibung der Fürstenthümer Wolfenbüttel und Blankenburg* | 1802 | Braunschweig: in Kommission bei Friedrich Bernhard Culemann. |
| Kant, Immanuel (1724-1804) edited by Rink, Friedrich Theodor (1770-1821) | *Immanuel Kant's physische Geographie. Auf Verlangen des Verfassers, aus seiner Handschrift herausgegeben und zum Theil bearbeitet von Friedrich Theodor Rink (1770-1821)* | 1802 | Königsberg: Göbbels and Unzer |
| Sprengel, Matthias Christian (1746-1803) | *Erdbeschreibung von Ostindien, nemlich Hindostan und Dekan* | 1802 | Hamburg: Bohn |
| Zimmermann, Eberhard August Wilhelm von (1743-1815) | *Taschenbuch der Reisen oder unterhaltende Darstellung der Entdeckungen des 18ten Jahrhunderts: in Rücksicht der Länder-, Menschen und Productenkunde. Für jede Klasse von Lesern von E. A. W. von Zimmermann* | 1802-1813 (twelve volumes until then) | Leipzig: Fleischer |
| Denina, Carlo (1731-1813) | *Geographie und Statistik der sämtlichen Staaten des Königs von Sardinien nach ihrem Umfange vor dem französischen Revolutions-Kriege: enthaltend Savoyen, Piemont, Monferrat, einen Theil von Mailand und die Insel Sardinien; zur Erläuterung der von dem Herrn Abt Denina herausgegebenen Karte dieser Staaten. (Aus dem historischen Werke desselben besonders abgedruckt.)* | 1802 | Berlin: F. T. La Gard |

| | | | |
|---|---|---|---|
| Koch-Sternfeld, Joseph Ernst von (1778-1866) | *Historisch-geographisches Repertorium über die unpartheyische Abhandlung vom Staate Salzburg, über Juvavia, und den diplomatischen Anhang des letzten Werkes: Behuf der Geschichte, des Salzburgl. Staats- und Privat-Rechts, und der Geographie des Mittelalters; historischer Theil /* | 1802 | Salzburg: Oberer |
| Eiselen, Georg Philipp (?-?) | *Briefe über verschiedene wichtige Gegenstände: nämlich Geographie, Vaterlandsgeschichte und Völkerkunde nebst moralischen Schreiben der Eltern und Lehrer .* | 1802 | |
| Desing, Anselm (Anselmo) (1699 - 1772), and Jann, Franz Xaver (1750-1828) | *Des Herrn Abbtes Anselm Desing, kurze Anleitung die Universalhistorie nach der Geographie auf der Landkarte zu erlernen, für die studierende Jugend herausgegeben. Aus neue übersehen, vermehrt, und bis auf gegenwärtige Zeit forgesetzet. Von Franz Xaver Jann, Priester und Lehrer am Gymnasium bey St. Salvator in Augsburg. Mit einer Universalkarte.* | 1803 | Augsburg: in Matthias Riegers sel. Buchhandlung |
| Gruber, Johann Gottfried (1774-1851) | *Sitten und Gebräuche der merkwürdigsten Nationen. Ein interessantes Lesebuch für die Jugend. Erstes Bändchen. Der Außereuropäischen Nationen. Erste Abtheilung.* | 1803 | Leipzig: Theodor Setger |
| Hegewisch, Dietrich Hermann (1746-1812) | *Geographische und historische Nachrichten die Colonien der Griechen betreffend; nebst Betrachtungen über die Veranlassungen, über den Zustand und die Schicksale dieser Colonien* | 1803 | Altona |
| Kutscher, Franz Jakob (?-1821) | *America, nach seiner ehemaligen und jetzigen Verfassung dargestellt nach den besten Geschichts- und Reisebeschreibungen: Ein Beitrag zur Geographie, Natur- und Völkergeschichte von Westindien.* | 1803-1804 (in two volumes) | Schleswig: Röhß |

| | | | |
|---|---|---|---|
| Reilly, Franz Johann Joseph von (1766-1820) | *Catechismen der neuesten Erdbeschreibung. Ein Leitfaden beym Unterrichte für Lehrer und Lernende. Erster Theil mit drei Kupfertafeln* | 1804 (first edition) (second edition in 1818) | Wien: Im geographischen Verschleiß-Koptoir des Verfassers |
| Richter, Karl Gottlieb (1777-1847) | *Kleines geographisches Post- und Reiselexicon für die Besitzer des täglichen Taschenbuchs oder alph. Beschreibung aller im täglichen Taschenbuch befindl. Poststationen / von Richter. Mit e. Vorrede. d. Galletti* | 1804 | Gotha: Ettinger |
| Ritter, Carl (1779-1859) | *Europa: ein geographisch-historisch-statistisches Gemählde; für Freunde und Lehrer der Geographie, für Jünglinge, die ihren Cursus vollendeten, bey jedem Lehrbuche zu gebrauchen / Nach den neuesten und besten Quellen* | 1804 | Frankfurt am Mayn: Hermann |
| Sotzmann, Daniel Friedrich (1754-1840) | *Lehrbuch der allgemeinen Erdbeschreibung für öffentliche und Privat-Schulen nach Wilhelm Guthrie bearb.* | 1804 | Berlin |
| Wiedemann, Wilhelm Julius (-1816) | *Faslicher Unterricht in der Geographie für Anfänger und mittlere Klassen: nach d. neuesten Länderveränderung zweckmäßig eingerichtet, Volume 1* | 1804 | Quedlinburg: Ernst |
| Schmidt, Johann (?-?) | *Geographie und Geschichte des Herzogthums Berg, seiner Herrschaften, der Graffschaft Homburg, und der Herrschaft Gimborn-Neustadt, der Graffschaft Mark, ... des Ruhrdepartementes und des ehemaligen östereichischen Herzogthums Limburg* | 1804 | Stollberg: Schmidt |
| Nieräse, Johann Samuel Friedrich (?-1808) | *Leitfaden der Geographie für Schulen und Gymnasien: zunächst für die untern und mittlern Klasse* | 1804 | Berlin: Gottlieb Willhelm Müller |
| Engel, Moritz (?-?) | *Handbuch der Geographie: nach den neuesten Veränderungen für den Schul- und Privatgebrauch bearbeitet* | 1804 (fifth edition) | Leipzig: Junius |

| | | | |
|---|---|---|---|
| Baczko, Ludwig von (1756-1823) | *Grundriß einer Geschichte, Erdbeschreibung und Statistik aller Provinzen des preussischen Staats: nebst einer kurzen Einleitung in die allgemeine Geschichte und Geographie zum Gebrauch der Schulen* | 1804 | Königsberg; Leipzig: Göbbels und Unzer |
| Ehrmann, Theophil Friedrich (1762-1811) | *Allgemeines historisch-statistisch-geographisches Handlungs-Post-und Zeitungs-Lexikon für Geschäftsmänner, Handelsleute, Reisende und Zeitungsleser, enthaltend in alphabetischer Ordnung eine genaue, planmäßig vollständige, historische, statistische und topographische Beschreibung aller Erdtheile, Länder, Staaten, Inseln, Bezirke, Gebiete, Herrschaften, Völker, Meere, Seen, Flüsse, Wälder, Berge, Städte, Vestungen, Schlösser, Stifter, Seehäfen, Handelsplätze, Fabrikörter, Gesundbrunnen und Bäder, Poststazionen, Flekken und überhaupt aller, in irgend einer Hinsicht bemerkenswerter Ortschaften und Gegenden der Erde, mit Anzeige ihrer Lage, Entfernung, Herrschaft, vormaligen und jetzigen Beschaffenheit und aller ihrer Natur- und Kunstmerkwürdigkeiten, von einer Gesellschaft kundiger Männer großen Theils aus handschriftlichen Nachrichten gesammelt* | 1804 | Erfurt: in der Hennigsschen Buchhandlung |
| Engelmann, Julius Bernhard (1773-1844) | *Allgemeine Geographie in Briefen an ein Frauenzimmer* | 1804 | Frankfurt a. M.: Guilhauman |
| Stäudlin, Karl Friedrich (1761-1826) | *Kirchliche Geographie und Statistik* | 1804 | Tübingen |
| Hommeyer, Heinrich Gottlob (?-1815) | *Beyträge zur Militair-Geographie der Europäischen Staaten* | 1805 | Breslau: Johann Friedrich Korn dem Aeltern. |
| Röder, Philipp Ludwig Hermann (1755-1831) | *Erdbeschreibung von Europa. Vorzüglich zum Gebrauch der Schulen.* | 1805 | Reutlingen: Jakob Ulrich Mäcken und Comp. |

| | | | |
|---|---|---|---|
| Uihlein, Joseph (1756-1813) | *Kurzer Unterricht in der Geographie für Schulen* | 1805, 1811 (second edition) | Frankfurt am Mayn: Andreä |
| Wahl, Samuel Friedrich Günther (1760-1834) | *Asien, nemlich Hindostan und Dekan: vorläufig Versuch einer ausführlichen Litteratur der Geschichte und Erdbeschreibung von Ostindien und von Asien überhaupt; Nachträge zu der von Matth. Chr. Sprengel gelieferten zweyten Abtheilung* | 1805 | Hamburg: Bohn |
| Feuerstein, Heinrich (?-?) | *Grundriß der neuesten Handels-Geographie für angehende Kaufleute, Fabrikanten und Manufakturisten. Mit einer Vorr. und Einl. von Theophil Friedrich Ehrmann* | 1805 | Eisenberg: Schoene |
| Müllner, Josef Nepomuk (?-?) | *Versuch einer statistischen Geographie von Böhmen* | 1805 | Prag: Barth |
| Bruns, Paul Jakob (1743-1814) | *Außer-Europäische Geographie nach den bewährtesten Augenzeugen dargestellt: oder Erdbeschreibung von Asien, Afrika, Amerika und Australien* | 1805 | Berlin und Stettin: bey Friedrich Nicolai |
| Müller, Christian Adam (?-?) | *Neueste allgemeine Geographie für die gegenwärtige Zeit: ein vollständig geographisch-statistisches Handbuch der gesammten Erd- und Länderkunde* | 1805 | Hof: Grau |
| Hellbach, Johann Christian von (1757-1828) | *Archiv für die Geographie, Geschichte und Statistik der Graffschaft Gleichen und ihrer Besitzer* | 1805 | Altenburg: Schnuphase |
| Prändel, Johann Georg (1759-1816) | *Erdbeschreibung der gesammten pfalzbairischen Besitzungen. Mit steter Hinsicht auf Topographie, Geschichte, physische Beschaffenheit, Land- und Staatswirthschaft* | 1805 | Amberg |
| Meinecke, Johann Ludwig Georg (1781-1823) | *Lehrbuch der Mineralogie mit Beziehung auf Technologie und Geographie für Schulen und den Privatunterricht* | 1808 | Halle: Hemmerde und Schwetschke |
| Barth, Ludwig (?-?) | *Anleitung zu phisischen, astronomischen, mathematischen, historischen und geographischen Kenntniß des Erdkörpers* | 1806 | Glückstadt: Schneider |

| | | | |
|---|---|---|---|
| Prändel, Johann Georg (1759-1816) | *Geographie der sämmtlichen kurpfalzbaierschen Erbstaaten, in Kurze gefaßt* | 1806 | Amberg: in der Uhlmannschen Buchhandlung, |
| Bundschuh, Johann Kaspar (1753-1814) | *Grundriß zum Vortrage der vaterländischen Erdbeschreibung und Geschichte in Franken* | 1806, 1809 | 1806: Schweinfurt: Ernesti, 1809: Hildburghausen: Hanisch |
| Galletti, Johann Georg August (1750-1828) | *Vollständiges geographisches Taschenwörterbuch: oder alphabetische Darstellung aller Länder, Städte, Flecken, ... ; nach den neuesten Verfassungen vorzüglich für Reisende* | 1807, 1809 (new edition) | Leipzig: Gleditsch |
| Humboldt, Alexander von (1769-1859) | *Einleitung oder Ideen zu einer Geographie der Pflanzen, nebst einem Naturgemälde der Tropenlaender: mit einer Kupfertafel. In: Alexander von Humboldt's und Aimé Bonpland's Reise in die Aequinoktial-Gegenden des neuen Kontinents.* | 1807 | Tübingen: Cotta; Paris: Schoell |
| Wahl, Samuel Friedrich Günther (1760-1834) | *Asien, Erdbeschreibung von Ostindien, nemlich Hindostan und Dekan, nebst den Inseln Lakdiven, Maldiven und Ceylon* | 1807 | Hamburg: Bohn |
| Kalckmann, Hermann (?-?) | *Allgemeine Handels-Geographie für Kaufleute, Versicherer und Seefahrer: oder kurze und bündige Beschreibung aller handelnden Länder, deren Lage, Größe, Bevölkerung, Produkte, Handel, Schiffahrt, Handelsgerichte, Handelspolitik, Rechnungsarten, Münzen, Maaße, Gewichte, Zölle, Banken, Wechselgeschäfte, Handelscompagnien, Colonien, Flüsse, Kanäle, Häfen, Rheden, Ankerplätze, Bayen, Golfe, Meere, Ströhmungen, Stunde der Ebbe und Fluth, Klippen, Sandbänke und Untiefen; mit genauer Bezeichnung ihrer Gefahren bey dem Ein- und Auslaufen und Anlegen der Schiffe; nach den besten und neuesten Angaben in alphabetischer Ordnung abgefaßt* | 1807-1811 in five volumes, 1808, 1809, 1810, 1811 | Hamburg: Im Selbstverlage des Verfassers und bey dem Buchhändler |

| | | | |
|---|---|---|---|
| Stein, Christian Gottfried Daniel (1771-1830) | *Handbuch der Geographie nach den neuesten Ansichten für die gebildeten Stände, Gymnasien und Schulen* | 1808, 1811 (second edition) (further editions after 1815) | Leipzig: Hinrichs |
| Stein, Christian Gottfried Daniel (1771-1830) | *Kleine Geographie oder Abriß der mathematischen, physischen und besonders politischen Erdkunde nach den neuesten Bestimmungen für Gymnasien und Schulen von Dr. Christian Gottfried Daniel Stein.* | 1808, 1810 (second edition), 1811 (third edition), 1814 (fourth edition) | Leipzig: Hinrichs |
| Anonymous [Westenrieder, Lorenz von (1748-1829)]. | *Nützliche Kenntnisse für die Jugend. Ein Lehr- und Lesebuch.* | 1808 | München: Joseph Lindauer |
| Zeune, August (1778-1853) | *Gea [Goea]: Versuch einer wissenschaftlichen Erdbeschreibung* | 1808, 1811 (second edition) | Berlin: Wittich |
| Bredow, Gabriel G. (1773-1814) | *Handbuch der alten Geschichte, Geographie und Chronologie* | 1808 (second edition) | Altona: Hammerich |
| Humboldt, Alexander von (1769-1859) | *Versuch über den politischen Zustand des Königreichs Neu-Spanien: enthaltend Untersuchungen über die Geographie des Landes, über seinen Flächeninhalt und seine neue politische Eintheilung, über seine allgemeine physische Beschaffenheit, über die Zahl und den sittlichen Zustand seiner Bewohner, über die Fortschritte des Ackerbaues, der Manufacturen und des Handels, über die vorgeschlagenen Canal-Verbindungen zwischen dem antillischen Meere und dem grossen Ozean, über die militärische Vertheidigung der Küsten, über die Staatseinkünfte und die Masse edler Metalle, welche seit der Entdeckung von America, gegen Osten und Westen, nach dem alten Continent übergeströmt ist* | 1809-1814 | Tübingen: J. G. Cotta'sche Buchhandlung |
| Stein, Christian Gottfried Daniel (1771-1830) | *Nachträge zum Handbuche der Geographie oder Darstellung der geographischen Veränderungen von Ostern* | 1809 | Leipzig: Hinrichs |

| | | | |
|---|---|---|---|
| | *1808 bis dahin 1809* | | |
| Rühs, Friedrich Christian (1781-1820) | *Finnland und seine Bewohner: mit einer Charte von Finland* | 1809 | Leipzig: Georg Joachim Göschen |
| Gaedicke, Johann Christian (1763-1837) | *Kleine Geographie des Preussischen Staats: nach den neuesten Veränderungen und mit den Nötigen statistischen Angaben* | 1809 | Berlin: Gädicke |
| Rohde, Johann Philipp von (1795-1834) | *Jahreszeiten von höherer Ordnung: Oder über einen Gegenstand der physischen Geographie* | 1809 | Königsberg |
| Miltenberg, Wilhelm Adolph von Dr. (?-?) | *Leitfaden zur neuesten Geographie von Deutschland und einigen benachbarten Staaten: Zum Gebrauch für Gymnasien; nach den neuesten Charten und besten Quellen bearbeitet* | 1809 | Frankfurt am Main: Jäger |
| Anonymous | *Kurzgefaßte Geographie des Königreiches Baiern zum Gebrauche in den Schulen* | 1809 | Passau: Ambrosi |
| Hommeyer, Heinrich Gottlob (?-1815) | *Reine Geographie von Europa: allgemeine Terrainbeschreibung der europäischen Erdfläche* | 1810 | Königsberg: Haberland |
| Zimmermann, Eberhard August Wilhelm von (1743-1815) | *Die Erde und ihre Bewohner nach den neuesten Entdeckungen: ein Lesebuch für Geographie, Völkerkunde, Produktenlehre und den Handel* | 1810-1814 (in four parts), 1815 (reprint) | 1810-1814: Leipzig: Fleischer, 1815: Stuttgart: Macklot |
| Guts Muths, Johann Christoph Friedrich (1759-1839) | *Lehrbuch der Geographie: zum Gebrauch für Lehrer beim Unterricht, sowohl in höhern und niedern Lehranstalten, als beym Privatunterricht und für Freunde der Geographie überhaupt* | 1810-1816 | Leipzig: J. F. Gleditsch |
| Oltmanns, Jabbo (1783-1833) Humboldt, Alexander von (1769-1859); Bonpland, Aimé (1773-1858) | *Untersuchungen über die Geographie des Neuen Continents: Gegründet auf die astronomischen Beobachtungen und barometrischen Messungen Alexander's von Humboldt und anderen Reisenden* | 1810 | Paris: Friedrich Schoell |

| | | | |
|---|---|---|---|
| Blech, Abraham Friedrich (1762-1830) | *Lehrbuch der Erdbeschreibung für Schulen, nach minder veränderlichen Grundsätzen.* | 1810 | Königsberg |
| Engelhardt, Karl August (1768-1834) | *Lehrbuch der Erdbeschreibung des Königreichs Sachsen für Schulen* | 1810 (second edition) 1811 | Dresden: Selbstverlag; Leipzig: Barth |
| Keyser, Georg Heinrich (1778-1819) | *Elementar-Geographie des Königreichs Baiern zum Gebrauche der Schulen* | 1810 | München |
| Keyser, Georg Heinrich (1778-1819) | *Lehrbuch der Länder- und Staatenkunde. Auf eine einfachere Methode gebauet.* | 1810 | München |
| Becker, K. A. G. (?-?) | *Allgemeine Weltgeschichte und kleine Erdbeschreibung für Lehrende und Lernende.* | 1810 | Berlin: Maurer |
| Mühlen, C.J.P. v. (?-?) | *Zweites Schulbuch der Geographie, nach einer ganz neuen Lehrart vorgetragen, durch C.J.P.v. Mühlen.* | 1810 | Cleve |
| Rommel, Christoph von (1781-1859) | *Ueber Geographie, Ethnographie und Statistik: nebst einem Abriss dieser und der politischen Wissenschaften; zum Behuf akademischer Vorlesungen* | 1810 | Marburg: Kriege |
| Hommeyer, Heinrich Gottlob (?-1815) | *Einleitung in die Wissenschaft der reinen Geographie für Erzieher, Lehrer und gebildete Eltern zur Vorbereitung auf den Gebrauch des Lehrbuchs des reinen Geographie für Schulen* | 1811 | Königsberg: Degen |
| Keyser, Georg Heinrich (1778-1819) | *Umriß der Geographie und Statistik von Baiern: Zum Gebrauch in den Lehranstalten dieses Reiches* | 1811 | Erlangen: Johann Jakob Palm |
| Stein, Christian Gottfried Daniel (1771-1830) | *Geographie für Real- und Bürgerschulen nach Naturgränzen* | 1811 (second edition in 1818) | Leipzig: Hinrichs |
| Wilmsen, Friedrich Phillip (1770-1831) | *Die Erde und ihre Bewohner; Ein geographisches Bilderbuch für die Jugend* | 1811, 1813, 1815 | 1811, 1813: Berlin: Braunes; 1815: Berlin: Achenwall |
| Schmidt, Johann Gottlieb (1742-1820) | *Lehrbuch der mathematischen Wissenschaften. Teil: Vierter und letzter Band: Welcher die mathematische Geographie, besonders für den öffentlichen Unterricht auf den benannten Schulen enthält.* | 1811 | Leipzig: Johann Conrad Hinrichs |

| | | | |
|---|---|---|---|
| Schmidt, J. M. F. (?-?) | *Ein Paar Worte über Geographie und deren Lehrmethode; nebst Ankündigung eines ihr gemässen Lehrbuchs und Globus.* | 1811 | Berlin: Maurer |
| Eisenmann, Joseph Anton (?-?) | *Neueste Geographie des Königreichs Bayern* | 1811 | München: Lindauer |
| Paulus, Heinrich Eberhard Gottlob (1761-1851) | *Elementarbuch für den Schulunterricht in der Geographie: aus d. Allgemeinen Lesebuche von H. E. G. Paulus besonders abgedruckt. eingetretenen politischen Bestimmungen von e. Lehrer d. Geographie umgearb. Aufl.* | 1811 | Bamberg; Würzburg: Goebhardt |
| Henning, Johann Wilhelm Mathias (1783-1868) | *Leitfaden beim methodischen Unterricht in der Geographie. Besonders für Eltern und für Lehrer in Elementarschulen* | 1812 | Institut zu Iferten: gedruckt und zu haben im literarischen Büreau |
| Kunz, Ferdinand (?-?) | *Versuch eines Handbuches der reinen Geographie als Grundlage zur höheren Militair-Geographie: zum Gebrauch für Kriegsschulen und für Offiziere* | 1812 | Stuttgart; Tübingen: Cotta |
| Zimmermann, Eberhard August Wilhelm von (1743-1815) | *Malte-Bruns Geschichte der Erdkunde von den ältesten bis auf die neuesten Zeiten nach den gültigsten Angaben* | 1812 | Leipzig: Mitzky |
| Zimmermann, Eberhard August Wilhelm von (1743-1815) | *Malte-Brun's Abriß der allgemeinen Geographie oder Beschreibung aller Theile der Erde nach einem neuen Plane und den großen natürlichen Abtheilungen gemäß entworfen* | 1812 | Leipzig: Mitzky |
| Klapproth, Heinrich Julius (1783–1835) | *Abhandlung über die Sprache und Schrift der Uiguren* | 1812 | Berlin |
| Bucher, August Leopold (?-?) | *Betrachtungen über die Geographie und über ihr Verhältniss zur Geschichte und Statistik: Mit einer Karte* | 1812 | Leipzig: Fleischer |
| Zimmermann, Eberhard August Wilhelm von (1743-1815) | *Die unter Canada gelegenen Theile von Nord-Amerika. Eine Lesebuch für Geographie, Völkerkunde und Produktenlehre und den Handel* | 1812 | Stuttgart: Macklot |
| Dihm, Christian F. (?-?) | *Grundriss der neusten Geographie für Schulen* | 1813 (third edition) | Glogau |

| | | | |
|---|---|---|---|
| Schnurrer, Christian Friedrich (1742-1822) | *Geographische Nosologie oder die Lehre von den Veränderungen der Krankheiten in den verschiedenen Gegenden der Erde: in Verbindung mit physischer Geographie u. Natur-Geschichte des Menschen* | 1813 | Stuttgart: Steinkopf |
| Niesenböck, Thomas (?-?) | *Erste Grundlage der Geographie Sammlung nach d. Fassungskraft d. Anfänger eingerichte* | 1813 | Dilingen; Brönner |
| Marienburg, Lucas Joseph (1770-1821) | *Geographie des Großfürstenthums Siebenbürgen* | 1813 | Hermannstadt: Hochmeister |
| Löhr, Johann Andreas Christian (1764-1823) | *Die Bewohner der Erde oder Beschreibung aller Völker der Erde* | 1814 (later editions until 1824) | Leipzig: Gerhard Fleischer dem Jüngern |
| Klapproth, Heinrich Julius (1783-1835) | *Geographisch-historische Beschreibung des östlichen Kaukasus: zwischen den Flüssen Terek, Aragwi, Kur und dem Kaspischen Meere* | 1814 | Weimar: Verlag des Landes-Industrie-Comptoirs |
| Keyser, Georg Heinrich (1778-1819) | *Geographische Unterhaltungen zur Belehrung für Liebhaber der Erdkunde* | 1814 | Augsburg: In d. Expedition d. geograph. Unterhaltungen |
| Kries, Friedrich Christian (1768-1849) | *Lehrbuch der mathematischen Geographie; Mit 7 Tafeln* | 1814 | Leipzig |
| Wilmsen, Friedrich Phillip (1770-1831) | *Fremde Länder und Völker: ein höchst lehrreiches, geographisch-naturhistorisches Bilderbuch für die Jugend. Mit 20 ausgemahlten Kupfern* | 1815 | Berlin: Achenwall |
| Lippold, Georg Heinrich Christian (1767-1841) | *Unser Planet oder die Erde in mathematischer und physikalischer Hinsicht: für allerlei Leser, insonderheit auch für die Jugend gebildeter Stände* | 1815 | Elberfeld: bei Heinrich Büschler, Schönian |

## German geographical periodicals published in the German states or their provinces, *c.*1690 – *c.*1815, by first year of edition or first identified version

| Name of editor(s) | Title of the periodical | Edition period and edition frequency | Year of first edition | Place of publisher, name of publisher |
|---|---|---|---|---|
| Lehmann, Peter Ambrosius (1663-1729) | *Historische Remarques der Neuesten Sachen...aus der Geographie, Genealogie, Historie etc. erläutert* | 1699-1707 | 1699 | Hamburg: Joachim Reumann |
| Anonymous | *Singularia Historico-Geographica, Oder Historische und Geographische Merckwürdigkeiten* | 1699-1703 | 1699 | Leipzig: Friedrich Groschuff |
| Anonymous | *Historische, genealogische und geographische Anmerckungen über die Zeitungen* | 1729-1731 | 1729 | St. Petersburg: Kaiserl. Akademie der Wissenschaften |
| Anonymous | *Anmerckungen über die Zeitungen* | 1732-1741 | 1732 | St. Petersburg: Kaiserl. Akademie der Wissenschaften |
| Schmeitzel, Martin (1679-1747) | *Der Reisende Deutsche im Jahr 1744. Welcher Länder und Städte beschreibet, auch die alten und neusten Staats-Begebenheiten bekannt macht. Mit einer Vorrede Herrn Martin Schmeitzels* | 1744 | 1744 | Halle: Kittler |
| Anonymous | *Neueste Staatshistorie, welche die heutigen Begebenheiten der Welt in sich fasset* | 1746-1747 | 1746 | Leipzig: Dyck |
| Mitglieder der Kosmographischen Gesellschaft ("die sich von langer Zeit zu dieser Wissenschaft tüchtig zu machen getrachtet haben" (352), Johann Michael Franz, Johann Matthias Haase, später Georg Moritz Lowitz) (Kühn 1939) | *Kosmographische Nachrichten und Sammlungen auf das Jahr 1748: zum Wachsthume der Weltbeschreibungswissenschaft von den Mitgliedern der kosmographischen Gesellschaft zusammengetragen* | 1750 (for 1748) | 1750 | Wien/Vienna: Johann Paul Krauß; Nürnberg/Nuremberg: Homann |
| Hager, Johann Georg (1709-1777) | *Geographischer Büchersaal, zum Nutzen und Vergnügen der Liebhaber der Geographie eröfnet* | 1764-1778 (published in three volumes in 1766, 1774, 1778) | 1766 | 1766: Chemnitz: Johann David Stößels Erben; 1774, 1778: Chemnitz: Stößel und Putscher |

| | | | | |
|---|---|---|---|---|
| Büsching, Anton Friedrich (1724-1793) | *Magazin für die neue Historie und Geographie* | 1767-1793 | 1767 | 1767: Hamburg: Friedrich Christian Ritter; 1768: Hamburg: Johann Nicolaus Carl Buchenröders and Compagnie; 1770: Hamburg: Johann Nicolaus Carl Buchenröders and Ritters; 1767-1786 also: Halle: Curt; 1787-1793: Halle: sel. Johann Jacob Curts Witwe |
| Gatterer, Johann Christoph (1727-1799) | *Allgemeine Historische Bibliothek* | 1767–1771 | 1767 | Halle: Gebauer |
| Gatterer, Johann Christoph (1727-1799) | *Historisches Journal von Mitgliedern des Königlichen Instituts zu Göttingen* | 1772–1781 | 1772 | Göttingen: Vandenhoeck |
| Büsching, Anton Friedrich (1724-1793) | *Wöchentliche Nachrichten von neuen Landcharten, geographischen und statistischen Sachen* | 1773-1788 | 1773 | Berlin: Haude and Spener |
| Otto, Johann Friedrich Wilhelm (1743-1814) | *Vermischte Beyträge zur physikalischen Erdbeschreibung* | 1773-1787 | 1773 | Brandenburg: Halle and Halle |
| Schlözer, August Ludwig von (1735-1809) | *Briefwechsel, meist statistischen Inhalts* | 1775 | 1775 | Göttingen: Johann Christian Dieterich |
| Schlözer, August Ludwig von (1735-1809) | *Briefwechsel meist historischen und politischen Inhalts* | 1776-1782 | 1776 | Göttingen: Vandenhoek |
| Müller, Johann Carl (1748-?) | *Geographische Belustigungen zur Erläuterung der neuesten Weltgeschichte (mit Landkarten, Planen und Kupfern nach den neuesten und besten Originalen)* | 1776-1778 | 1776 | Leipzig: Johann Carl Müller |
| Ebeling, Daniel Christoph (1741-1817) | *Amerikanische Bibliothek* | 1777-1778 | 1777 | Leipzig: Weygand |
| Lichtenberg, Georg Christoph (1742-1799) and Forster, Georg (1754-1784) | *Göttingisches Magazin der Wissenschaften und Litteratur* | 1780-1785 | 1780 | Göttingen: Johann Christian Dieterich |
| Schneider, Adam Gottlieb and Weigel [editors or publishers?] | *Bibliothek der neuesten Reisebeschreibungen* | 1780-1805 | 1780 | Nürnberg/Nuremberg and Leipzig: Christoph Weigel und Schneider |

| | | | | |
|---|---|---|---|---|
| Rösler, Christian Friedrich (1736-1821) | *Beyträge zur Statistik und Geographie vorzüglich von Deutschland aus der neuesten Literatur* | 1780-1782 | 1780 | Tübingen: Heerbrandt |
| Forster, Johann Reinhold (1729-1798) and Sprengel, Mathias Christian (1746-1803) | *Beiträge zur Völker- und Länderkunde* | 1781-1790 | 1781 | Leipzig: Weygand |
| Pallas, Peter Simon (1741-1811) | *Neue Nordische Beyträge zur physikalischen und geographischen Erd- und Völkerbeschreibung, Naturgeschichte und Oekonomie* | 1781-1796 | 1781 | St. Petersburg; Leipzig: J.Z. Logan |
| Fischbach, Friedrich Ludwig Joseph (1752-?) | *Historische, politisch-geographisch-statistisch und militärische Beyträge, die königlich-preußischen und benachbarte Staaten betreffend* | 1781-1784(85) | 1781 | Berlin: Pauli |
| Müller, Johann Carl (1748-?) | *Geographische, historische, statistische Belustigungen* | 1781-1782 | 1781 | Vol 1-2: Leipzig: Adam Friedrich Böhme; volumes 3-4: Leipzig: Johann Carl Müller |
| Schlözer, August Ludwig von (1735-1809) | *Stats-Anzeigen* | 1782-1793 | 1782 | Göttingen: Vandenhoeck and Ruprecht |
| "Gesellschaft Gelehrte", die dem Kunsthändler Johann Carl Müller (1748-?) die Herausgabe aufgetragen | *Historische, Statistische, Geographische Belustigungen* | 1782 | 1782 | Leipzig: Böhmen |
| Ehrmann, Theophil Friedrich (1762-1811) | *Magazin der Erd- und Völkerkunde* | 1782-1783 | 1782 | Gießen: Krieger der Jüngere |
| Fabri, Johann Ernst (1755-1825) | *Geographisches Lesebuch* | 1782-1787 | 1782 | Halle: Gebauer |
| Friedrich Ekkard (1744-1819) | *Der Reisende: ein Wochenblatt zur Ausbreitung gemeinnütziger Kenntnisse* | 1782 | 1782 | Hamburg: Matthiessen |
| Hausen, Carl Renatus (1740-1805) | *Historisches Portefeuille zur Kenntnis der gegenwärtigen und vergangenen Zeit* | 1782-1788 | 1782 | Wien/Vienna; Breslau; Leipzig; Berlin; Hamburg: Hausen |

| | | | | |
|---|---|---|---|---|
| Archenholtz, Johann Wilhelm (von) (1741-1812) | *Litteratur und Völkerkunde: ein periodisches Werk* | 1782-1786 | 1782 | Dessau: Verlags-Kasse für Gelehrte und Künstler; Leipzig: Buchh. der Gelehrten |
| Windisch, Karl Gottlieb von (1725-1793) | *Ungrisches Magazin oder Beyträge zur ungrischen Geschichte, Geographie, Naturwissenschaft und der dahin einschlagenden Litteratur* | 1782-1788 | 1782 | Preßburg: Löwe |
| Fabri, Johann Ernst (1755-1825) | *Geographisches Magazin* | 1783-1785 | 1783 | Dessau, Leipzig: Buchhandlung der Gelehrten |
| Heinze, Valentin August (?-?) | *Kielisches Magazin für die Geschichte, Staatsklugheit und Staatenkunde* | 1783-1786 | 1783 | Kiel, Leipzig: gedruckt auf Kosten des Herausgebers und zu finden bey ebendemselben und in der Buchhandlung der Gelehrten |
| Anonymous | *Auswahl kleiner Reisebeschreibungen und anderer statistischen und geographischen Nachrichten* | 1784-1795 | 1784 | Leipzig: Schneider |
| Ebeling, Christoph Daniel (1741-1817) and Büsch, Johann Georg (1728-1800) | *Handlungsbibliothek* | 1784-1797 | 1784 | Hamburg: Bohn |
| Anonymous | *Reise-Magazin zur Ausbreitung der Erdkunde der Völker- und Menschen-Kenntnis: mit Anmerkungen versehen* | 1784 | 1784 | Altona: Eckhardt |
| Schedel, Johann Christian (?-?) | *Ephemeriden oder Beyträge und Versuche für Kaufleute* | 1784 | 1784 | Lübeck: Donatius |
| Weddigen, Peter Florenz (1758-1809) | *Westphälisches Magazin zur Geographie, Historie und Statistik* | 1784 - 1788 | 1784 | Dessau und Leipzig: Buchhandlung der Gelehrten; Minden |
| Fabri, Johann Ernst (1755-1825) | *Neues Geographisches Magazin* | 1785-1789 | 1785 | Halle: Verlag des Waisenhauses |
| Bernoulli, Johann III (1744-1807) [Johann (Jean)III Bernoulli, the younger] | *Archiv zur neuern Geschichte, Geographie, Natur- und Menschenkenntniß* | 1785-1788 | 1785 | Leipzig: Georg Emanuel Beer |
| Einige Gelehrte (several scholars) | *Historisch und statistisches Magazin, vornehmlich von Ober-Teutschland, gesammlet durch einige Gelehrte, Im Verlag der typographischen Gesellschaft* | 1785-1786 | 1785 | Kempten: Verlag der Typographischen Gesellschaft |

| | | | | |
|---|---|---|---|---|
| Schulz, Johann Christian Friedrich (1747-1806) | *Neue Quartalsschrift zum Unterricht und zur Unterhaltung, aus den neuesten und besten Reisebeschreibungen gezogen, auch als: Auserlesene Aufsätze zur geographischen, statistischen, politischen und sittlichen Länder- und Völkerkunde. Eine Quartalsschrift aus den neuesten und besten Reisebeschreibungen gezogen* | 1786-1797 | 1786 | Berlin: Wever |
| Schedel, Johann Christian (1750-1803) | *Allgemeines Journal für die Handlung oder gemeinnützige Aufsätze, Versuche und Nachrichten* | 1786-1787; 1788-1789 | 1786 | Frankfurt/Main: Andreä |
| Fabri, Johann Ernst (1755-1825) | *Allgemeine politische Zeitung* | 1786-1788 | 1786 | Halle: Expedition |
| Heinze, Valentin August (?-?) | *Neues Kielisches Magazin für die Geschichte, Staatsklugheit und Staatenkunde* | 1787-1790 | 1787 | Kopenhagen: Proste |
| Canzler, Friedrich Gottlieb (1764-1811) | *Allgemeines Archiv für die Länder-, Völker- und Staatenkunde* | 1787 | 1787 | Göttingen: Johann Christian Dieterich |
| Archenholtz, Johann Wilhelm (von) (1741-1812) | *Neue Litteratur und Völkerkunde: ein periodisches Werk* | 1787-1791 | 1787 | Leipzig: Göschen |
| Spittler, Ludwig Timotheus von (1752-1810) and Meiners, Christoph (1747-1810) | *Göttingisches Historisches Magazin* | 1787-1791 | 1787 | Hannover: Helwing |
| Anonymous | *Neue Sammlung von kleinen interessanten Reisebeschreibungen oder Beyträge zur näheren Kenntniss der Länder, Menschen und andern nützlichen Sachen* | 1787-1790 | 1787 | Münster; Osnabrück: Philipp Heinrich Perrenon |
| Fabri, Johann Ernst (1755-1825) and Hammerdörfer, Karl (1758-1794) | *Historische und geographische Monatsschrift* | 1788 | 1788 | Halle; Leipzig; Jena; Gotha; Hamburg; Nürnberg; Wien/Vienna |
| Canzler, Friedrich Gottlieb (1764-1811) | *Neue Wöchentliche Nachrichten von neuen Landcharten, geographischen, statistischen, historischen, wie auch Handlungsbüchern und Sachen* | 1788-1789 | 1788 | Göttingen: Vandenhoeck and Ruprecht |

| | | | | |
|---|---|---|---|---|
| Westenrieder, Lorenz von (1748-1829) | *Beyträge zur vaterländischen Historie, Geographie, Statistik und Landwirtschaft: samt einer schönen Literatur* | 1788-1817 | 1788 | München: Lindauer |
| Blumenbach, Johann Friedrich (1752-1840) | *Sammlung seltener und merkwürdiger Reisegeschichten* | 1789-1790 | 1789 | Memmingen: Seyler |
| Fabri, Johann Ernst (1755-1825) and Hammerdörfer, Karl (1758-1794) | *Historisches und geographisches Journal* | 1789-1790 | 1789 | Jena; Leipzig; Halle; Gotha; Hamburg; Nürnberg; Wien |
| Zimmermann, Eberhard August Wilhelm von (1743-1815) | *Annalen der Geographie und Statistik* | 1790-1792 | 1790 | Braunschweig: Zimmermann; Leipzig: Crusius |
| Ehrmann, Theophil Friedrich (1762-1811) | *Unterhaltungen für Freunde der Länder- und Völkerkunde, oder Sammlung kleiner, interessanter und noch ungedruckter Reisebeschreibungen, geographischer Nachrichten, Aufsätze und Auszüge zur nähern Kenntnis minder bekannter Länder und Völker. In 2 Teilen* | 1790 | 1790 | Stuttgart: Erhard and Löflund |
| Stöver, Dietrich Heinrich (1767-1822) | *Archiv zur Länder- und Geschicht-Kunde unsrer Zeit* | 1790 | 1790 | Schwerin: Bödner |
| Canzler, Friedrich Gottlieb (1764-1811) | *Neues Magazin für die neuere Geschichte, Erd- und Völkerkunde, als Fortsetzung des Büschingschen* | 1790 | 1790 | Leipzig: Friedrich Gotthold Jacobäer |
| Hirsching, Friedrich Carl Gottlob (1762-1800) | *Allgemeines Archiv für die Länder- und Völkerkunde* | 1790-1791 | 1790 | Leipzig: Christian Gottlob Hilscher |
| Forster, Georg (1754-1784) and Sprengel, Matthias Christian (1746-1803) | *Neue Beiträge zur Völker und Länderkunde* | 1790-1793 | 1790 | Leipzig: Kummer |
| Ersch, Johann Samuel (1766-1828) | *Repertorium über die allgemeinen deutschen Journale und andere periodische Sammlungen für Erdbeschreibung, Geschichte und die damit verwandten Wissenschaften.* | 1790-1792 | 1790 | Lemgo: Verlag der Meyerschen Buchhandlung |

| | | | | |
|---|---|---|---|---|
| Anonymous | *Magazin von merkwürdigen Reisebeschreibungen: aus fremden Sprachen übersetzt und mit erläuternden Anmerkungen begleitet* | 1790 - 1801 | 1790 | Berlin: Voß |
| Sonntag, K. G. (?-?) | *Monatsschrift zur Kenntniß der Geschichte und Geographie des Rußischen Reichs* | 1790-1790 | 1790 | Riga: Müller |
| mehrere Fränkische Gelehrte, Bundschuh, Johann Kaspar (1753-1814); Siebenkees, Johann Christian (1753-1841) | *Journal von und für Franken* | 1790-1793 | 1790 | Schwabach: Mizler |
| Canzler, Friedrich Gottlieb (1764-1811) | *Fragmente oder Beiträge für Geschichte, Geographie, Statistik, Handlung, und deren Hilfswissenschaften, auf das Jahr 1793* | 1791-1795 | 1791 | Berlin: Akademische Buchhandlung |
| Ehrmann, Theophil Friedrich (1762-1811) | *Bibliothek der neuesten Länder- und Völkerkunde: für Geographie-Freunde* | 1791-1794 | 1791 | Tübingen: Heerbrandt |
| Fabri, Johann Ernst | *Neues geographisches Lesebuch zum Nutzen und Vergnügen* | 1791-1794 | 1791 | Leipzig: Reinicke |
| Meiners, Christoph (1747-1810); Spittler, Ludwig Timotheus von (1752-1810) | *Neues Göttingisches Historisches Magazin* | 1791-1794 | 1791 | Hannover: Helwing |
| Kessler von Sprengseisen, Christian Friedrich (1730-1809) | *Fränkisches Magazin für Statistik, Naturkunde und Geschichte hauptsächlich Geographie und Topographie* | 1791-1792 | 1791 | Sonnenberg |
| Windisch, Karl Gottlieb von (1725-1793) | *Neues ungrisches Magazin oder Beyträge zur ungrischen Geschichte, Geographie, Naturwissenschaft, und der dahin einschlagenden Litteratur* | 1791-1792 | 1791 | Preßburg: Schauff; Wien: Alberti |
| Herzberg, David Georg Friedrich (1763-1822) | *Magazin für die Geographie und Statistik der Königlich-Preußischen Staaten* | 1791 | 1791 | Berlin, bei Friedrich Vieweg dem Aelteren |

| | | | | |
|---|---|---|---|---|
| Canzler, Friedrich Gottlieb (1764-1811) | *Allgemeines Literaturarchiv [Litteraturarchiv] für Geschichte, Geographie, Statistik, Handlung, deren Hülfswissenschaften und Hülfsmittel* | 1792-1795 | 1792 | Berlin: Akademische Buchhandlung |
| Canzler, Friedrich Gottlieb (1764-1811) | *Literaturarchiv für Landkarten, Seekarten, Grundrisse, Prospecte, Pläne, Völkertrachten und dahin gehörige Nachrichten für das Jahr...* | 1791 [1792]-1793 [1795] | 1792 | Leipzig: Heinsius und Sohn |
| Zimmermann, Eberhard August Wilhelm (von) and Bruns, Paul Jakob | *Repositorium für die neueste Geographie, Statistik und Geschichte* | 1792-1793 | 1792 | Tübingen: Cotta |
| Weinart, Benjamin Gottfried (1751-1813) | *Anton Büschings Magazin für die neue Historie und Geographie 23. Teil* | 1793 | 1793 | Halle: sel. Johann Jacob Curts Witwe |
| Anonymous | *Reise durch alle fünf Welttheile: ein geographisches Wochenblatt für jeden Liebhaber der Erdkunde* | 1793-1795 | 1793 | Bautzen: Arnold; Dresden-Friedrichstadt: Gerlach |
| Anonymous | *Magazin der Statistik, Geographie und Geschichte* | 1793-1793 | 1793 | Klagenfurt |
| Fabri, Johann Ernst (1755-1825) | *Beyträge zur Geographie, Geschichte und Staatenkunde* | 1794-1796 | 1794 | Nürnberg/Nuremberg: Schneider and Weigel |
| Sprengel, Mathias Christian (1746-1803) | *Auswahl der besten ausländischen geographischen und statistischen Nachrichten* | 1794-1798 | 1794 | Halle: Renger |
| Canzler, Friedrich Gottlieb (1764-1811) | *Allgemeines Literaturarchiv für Landkarten, Seekarten, Grundrisse, Prospecte, Pläne, Völkertrachten, dahin gehörige Nachrichen u.s.w. für das Jahr ...* | 1794 [1795] | 1795 | Berlin: Verl. d. kön. preuß. akad. Kunst- und Buchhandlung |
| Ebeling, Christoph Daniel (1741-1817) and Hegewisch, Dietrich Hermann (1746-1812) | *Amerikanisches Magazin, oder authentische Beiträge zur Erdbeschreibung, Staatskunde und Geschichte von Amerika, besonders aber der Vereinigten Staaten* | 1795-1797 | 1795 | Hamburg: Bohn |
| Fabri, Johann Ernst (1755-1825) | *Magazin für die Geographie, Staatenkunde und Geschichte* | 1797 | 1797 | Nürnberg: Raspe |
| Liechtenstern, Joseph Marx Freiherr von (1765-1728) | *Geographisch-statistische Monatsschrift* | 1797, 1 vol. | 1797 | Wien: Cosmographisches Gesellschaft |

| | | | | |
|---|---|---|---|---|
| Weddigen, Peter Florenz (1758-1809); Mallinckrodt, Arnold Andreas Friedrich (1768-1825) | *Magazin für Westfalen: der Geographie, Geschichte, Statistik und allem nützlichen Wissen gewidmet* | 1797-1799 | 1797 | Dortmund: Mallinckrodt, 1797-1799, Dortmund: Blothe |
| Zach, Franz Xaver von (1754-1832) | *Allgemeine Geographische Ephemeriden* | 1798-1799 | 1798 | Weimar: Verlag des Industrie-Comptoirs |
| Lange, Carl Julius (1755-1813) | *Neueste Staaten-Kunde: ein Journal für Regenten und Völker* | 1798, 1800-1813 | 1798 | Hof: Grau |
| Weddigen, Peter Florenz (1758-1809) | *Neues fortgesetztes westphälisches Magazin zur Geographie, Historie und Statistik* | 1798-1799 | 1798 | Wesel: Roeder |
| Weddigen, Peter Florenz (1758-1809) mit einer Gesellschaft Gelehrten herausgegeben | *Neues westphälisches Magazin zur Geographie, Historie und Statistik* | 1.1789/90 - 3.1792/94 | 1798 | Buchholz: Expedition d. Westphälischen Magazins; Lemgo: MeyerLemgo; Leipzig: Meyer; Bielefeld: Expedition d. Westphälischen Magazins; Dessau [?] |
| Bratring, Friedrich Wilhelm August (1772-1829) | *Magazin für die Land- und Geschichts-Kunde der Mark Brandenburg und anderer benachbarten Königl. Preußischen Provinzen: Mit besonderer Rücksicht auf neuere Geographie und Statistik* | 1798 | 1798 | Berlin: Mylius |
| Eine Gesellschaft theoretischer und praktischer Kaufleute [A society of theoretical and practical merchants] | *Neue Handlungsbibliothek* | 1799 | 1799 | Ronneburg, Leipzig: Schumann |
| Sprengel, Matthias Christian (1746-1803) and Ehrmann, Theophil Friedrich (1762-1811) | *Bibliothek der neuesten und wichtigsten Reisebeschreibungen zur Erweiterung der Erdkunde nach einem systematischen Plane bearbeitet Bibliothek der neuesten und wichtigsten Reisebeschreibungen und geographischen Nachrichten zur Erweiterung der Erdkunde, und in Verbindung mit einigen andern Gelehrten bearbeitet und hrsg. von M.C. Sprengel* | 1800-1814 | 1800 | Weimar: Verlag des Industrie-Comptoirs |

| | | | | |
|---|---|---|---|---|
| Gaspari, Adam Christian (1752-1830); Bertuch, Friedrich Justin (1747-1822); Reichard, Christian Gottlieb (1758-1837) | *Allgemeine geographische Ephemeriden* | 1800-1813 | 1800 | Weimar: Verlag des Industrie-Comptoirs |
| Gaspari, Adam Christian (1752-1830), und mehrere Gelehrte zur Herausgabe vereinigt | *Allgemeines Jahrbuch der Geographie und Statistik für das Jahr 1800* | 1800 | 1800 | Weimar: Verlag des Industrie-Comptoirs |
| Zach, Franz Xaver von (1754-1832) | *Monatliche Correspondenz zur Beförderung der Erd- und Himmelkunde* | 1800-1813 | 1800 | Gotha: Becker |
| Liechtenstern, Joseph Marx Freiherr von (1765-1728); "verfasset von einer Gesellschaft Gelehrten u. hrsg. Von Joseph Marx Freiherrn von Liechtenstein" | *Archiv für Geographie und Statistik, ihre Hülfswissenschaften und Litteratur mit vorzüglicher Rücksicht auf die österreichischen Staaten: verfasset von einer Gesellschaft Gelehrten* | 1800-1804 | 1800 | Wien/Vienna: bei der Expedition des Archivs für Geographie und Statistik; Prag: im Verlag der Schönefeldischen Niederlage |
| Fix, Christian Gotthilf (1761-1808) | *Politisch-arithmetisches Jahrbuch: zur Geschichte des menschlichen Lebens und der Fortpflanzung der Menschen in den Städten und auf dem Lande, wie auch zur Erweiterung der Naturkunde, der Staatswirthschaft, der Geographie, der Geschichte, und der Philosophie, besonders in Hinsicht auf das Churfürsthenthum Sachsen und seine Nebenländer* | 1801 | 1801 | Chemnitz: Tasché |
| Klapproth, Heinrich Julius (1783-1835), Herausgeber, verfasset von einer Gesellschaft | *Asiatisches Magazin* | 1802 | 1802 | Weimar: Industrie-Comptoir |

| | | | | |
|---|---|---|---|---|
| Anonymous | *Neues Magazin von merkwürdigen Reisebeschreibungen: aus fremden Sprachen übersetzt und mit erläuternden Anmerkungen begleitet* | 1803 | 1803 | Berlin: Voß |
| Bergk, Johann Adam (1769-1834), Haensel, K. (?-?); Baumgärtner, F. G. (?-?); F. J. (?-?) | *Asiatisches Magazin: oder Nachrichten von den Sitten u. Gebräuchen, den Wissenschaften u. Künsten, den Handwerken u. Gewerben, d. Denkart u. d. Religion d. Asiaten, von den Thieren, den Pflanzen, den Mineralien, dem Boden u. dem Clima von Asien* | 1806-1811 | 1806 | Leipzig: Baumgärtner |
| Weddigen, Peter Florenz (1758-1809) | *Historisch-geographisch statistische Beyträge zur nähern Kenntnis Westphalens* | 1806 | 1806 | Elberfeld: Büschler |
| Anonymous | *Archiv für die Geschichte, Geographie, Topographie und Statistik des Königreichs Westphalen* | 1808 | 1808 | Cassel |
| Hofmayr, Joseph Freyherr von (1782-1848) | *Archiv für Geographie, Historie, Staats- und Kriegskunst* | 1810 - 1822 | 1810 | Wien/Vienna: Härter |
| Klapproth, Heinrich Julius (1783-1835) | *Archiv für asiatische Literatur, Geschichte, und Sprachenkunde* | 1810 | 1810 | St. Petersburg |
| Anonymous | *Archiv für Geographie, Historie, Staats- und Kriegskunst* | 1810-1822 | 1810 | Wien: Härter |
| Liechtenstern, Joseph Marx Freiherr von (1765-1728); "verfasset von einer Gesellschaft Gelehrten u. hrsg. Von Joseph Marx Freiherrn von Liechtenstein" | *Archiv für Welt-, Erde- und Staatenkunde, ihre Hilfswissenschaften und Litteratur* | 1811-1812 | 1811 | Wien/Vienna: im Verlag des cosmographischen Instituts |
| Anonymous | *Geist der Zeit. ein Journal für Geschichte, Geographie, Statistik, Politik u. Kriegskunst* | 1811-1812 | 1811 | Brünn; Traßler |

| | | | | |
|---|---|---|---|---|
| Liechtenstern, Joseph Marx Freiherr von (1765-1728); "verfasset von einer Gesellschaft Gelehrten u. hrsg. Von Joseph Marx Freiherrn von Liechtenstein" | *Allgemeiner Anzeiger historisch-politischen und statistischen Inhalts oder Sammlung der neuesten Nachrichten von den merkwürdigsten Begebenheiten, und den geographischen Veränderungen in Europa bis zum Jahre 1817* | 1814-1817 | 1814 | Wien/Vienna: Cosmographische Gesellschaft |
| Anonymous | *Geist der Zeit. ein Journal für Geschichte, Politik, Geographie, Staaten- und Kriegskunde und Literatur* | 1815-1825 | 1815 | Wien; Heubner |